

AMAZING STORIES

FEBRUARY
1935

25 Cents



Valley of the Ruks by
HARL VINCENT

Island of White Mice by
DAVID H. KELLER, M. D.

And Other Science Fiction





"MONEY TO BURN"... yet he uses this 25¢ Tooth Paste... WHY?

YOU'D be surprised what sharp buyers most wealthy men are—even in little things. That's one of the secrets of their wealth.

Hundreds of the nation's tycoons last season took their ease at Palm Beach, Miami, Nassau, and other millionaires' playgrounds. Their yachts, their horses, their cars, their planes were a brilliant part of the parade of wealth and society.

It was amazing to find how many of such men—and their wives—used Listerine Tooth Paste. Why, with money to burn did they choose this 25¢ dentifrice? Only one answer to that! Results—quick, clean-cut, undeniable.

Direct Cleansing

Listerine Tooth Paste cleanses teeth better than ordinary pastes containing slippery ingredients, says a great dental authority. That is because its cleansing agents come in *direct contact* with decaying matter on teeth. With the aid of the tooth

brush, they get at hard-to-reach crevices and sweep destructive matter away. The teeth are left healthy and shining.

Contrast this thorough action with that of tooth pastes which cover teeth with a slippery barrier over which the tooth brush slides, only partly removing decaying matter beneath. No wonder teeth are dull and dingy!

See and Feel the Difference

You can feel the difference Direct Cleansing makes, the moment you use Listerine Tooth Paste. Your teeth actually feel cleaner when you run your tongue over them. Try it yourself and see. And your mirror tells you that they *look* cleaner within a few days.

Try It One Week

Why not give Listerine Tooth Paste a trial? Make it prove its results to you. In every way this modern tooth paste is worthy of the quality name it bears. Lambert Pharmacal Co., St. Louis, Mo.

LISTERINE TOOTH PASTE • 25¢

HE THOUGHT HE WAS LICKED—THEN A TIP GOT BILL A GOOD JOB!

MY RAISE DIDN'T COME THROUGH MARY— I MIGHT AS WELL GIVE UP, IT ALL LOOKS SO HOPELESS.



IT ISN'T HOPELESS EITHER BILL. WHY DON'T YOU TRY A NEW FIELD LIKE RADIO?

10
7



TOM GREEN WENT INTO RADIO AND HE'S MAKING GOOD MONEY, TOO. I'LL SEE HIM RIGHT AWAY.



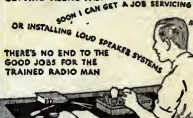
BILL, JUST MAILING THAT COUPON GAVE ME A QUICK START TO SUCCESS IN RADIO. MAIL THIS ONE TONIGHT

TOM'S RIGHT—AN UNTRAINED MAN HASN'T A CHANCE. I'M GOING TO TRAIN FOR RADIO TOO. IT'S TODAY'S FIELD OF GOOD PAY OPPORTUNITIES



TRAINING FOR RADIO IS EASY AND I'M GETTING ALONG FAST—

SOON I CAN GET A JOB SERVICING SETS—
OR INSTALLING LOUD SPEAKER SYSTEMS
OR IN A BROADCASTING STATION
THERE'S NO END TO THE GOOD JOBS FOR THE TRAINED RADIO MAN



YOU SURE KNOW RADIO—MY SET NEVER SOUNDED BETTER

THAT'S BECAUSE I'VE MADE THIS WEEK IN SPARE TIME



N.R.I. TRAINING CERTAINLY PAYS. OUR MONEY WORRIES ARE OVER AND WE'VE A BRIGHT FUTURE AHEAD IN RADIO.

OH BILL, IT'S WONDERFUL YOU'VE GONE AHEAD SO FAST IN RADIO.



I'LL TRAIN YOU AT HOME In Your Spare Time For A GOOD RADIO JOB

Mail the coupon now. Get the facts about Radio—the field with a future. N. R. I. training fits you for jobs in connection with the manufacture, sale and operation of Radio equipment. It fits you to go in business for yourself, service sets, operate on board ships, in broadcasting, television, aviation, police Radio and many other jobs. My FREE book tells how you quickly learn at home in spare time to be a Radio Expert.

Many Radio Experts Make \$40, \$60, \$75 a Week

Why struggle along in a dull job with low pay and no future? Start training now for the live-wire Radio field. I have doubled and tripled salaries. Hundreds of successful men now in Radio got their start through N. R. I. training.

**Many Make \$5, \$10, \$15 a Week Extra
in Spare Time While Learning**

Hold your job. I'll not only train you in a few hours of your spare time a week, but the day you enroll I'll send you instructions, which you should master quickly, for doing 28 Radio jobs common in most every neighborhood. I give you Radio Equipment for conducting experiments and making tests that teach you to build and service practically every type of receiving set made. Cleo T. Better, 30 W. Beechwood Ave., Dayton, Ohio, wrote: "Working only in spare time, I made about \$1,500 while taking the Course."

Find Out What Radio Offers—Mail Coupon

My book has shown hundreds of fellows how to make more money and win success. It's FREE to any ambitious fellow over 15 years of age. Investigate. Find out what Radio offers you. Read what my Employment Department does to help you get into Radio after graduation, about my Money Back Agreement, and the many other N. R. I. features. Mail the coupon in an envelope, or paste it on a 1c post card TODAY.

**J. E. SMITH, President, Dept. 58M
National Radio Institute, Washington, D. C.**

**J. E. SMITH, President, Dept. 58M
National Radio Institute, Washington, D. C.**

Dear Mr. Smith: Without obligating me, send your book which points out the spare time and full time job opportunities in Radio and your 50-50 method of training men at home in spare time to become Radio Experts.

(Please print plainly)

NAME.....AGE.....

ADDRESS.....

CITY.....STATE.....

HERE'S PROOF that my training pays



With R. C. A. Victor
"I am with R. C. A. Victor. I have been promoted several times. Am in full charge of Radio Frequency Testing Dept." Louis F. Flyet, 11th & Tigner Sts., Kenderton Apts., Philadelphia, Pa.



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Earn \$15 a Week**
"I have no trouble getting Radio work. I have the reputation of being the best Radio man in town, and average \$15 to \$20 a week for spare time only." G. Bernard Croy, 151 Washington St., Bronson, Michigan.



**Owes His Success to
Radio Training**
"Since 1929 I have earned my living in Radio. I owe my last three jobs to N. R. I. I am now in the main control room of one of the large broadcasting chain." George A. De Somer, 1516 Library Ave., New York City.

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THIS
NOW**



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AMAZING STORIES

Science Fiction

Vol. 9

FEBRUARY, 1935

No. 10

CONTENTS

Editorial

Atmospheric Layers.....*T. O'Connor Sloane, Ph.D.* 10

Serial

Conquest of the Planets
(Mother World) (Part II).....*John W. Campbell, Jr.* 14

Stories Complete in This Issue

Valley of the Rukh.....*Harl Vincent* 38
Seven Perils to Quiches.....*Joseph Wm. Skidmore* 62
Island of White Mice.....*David H. Keller, M.D.* 82
The Thing in the Woods...*Fletcher Pratt and B. F. Ruby* 112
When Time Stood Still.....*Philip Jaques Bartel* 123

Poem

Who Deserves Credit?.....*Bob Olsen* 81

Science Questionnaire 122

Book Reviews*C. A. Brandt* 132

Discussions 134

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End Self Denial

KNOW THE AMAZING TRUTH ABOUT SEX AND LOVE!

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Conquer Ignorance
Overcome Shame.



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Indecent Familiarity Hygiene
Pregnancy
Birth Control Chart

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Sexual Slavery of Women
Essentials of Happy Marriage
The Sex Organs

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Doctors Praise Cystex—Works in 15 Minutes

Cleans Out Acids and Poisons—Purifies Blood—Brings New Energy in 48 Hours.

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But you need not suffer another day from poorly functioning Kidneys or Bladder without the benefits of a Doctor's special prescription called Cystex (pronounced Siss-tek).



Dr. T. J. Rastelli

Dr. T. J. Rastelli, famous Doctor, Surgeon, and Scientist of London, says: "Cystex is one of the finest remedies I have ever known in my medical practice. Any doctor will recommend it for its definite benefits in the treatment of many functional Kidney and Bladder disorders. It is safe and harmless."

Cystex is not an experiment—it is quick and sure in action and has been tested and proved in millions of cases throughout the world. Because it combats and corrects many functional Kidney disorders, Cystex has gained a worldwide reputation as a successful treatment.

Dr. T. A. Ellis, graduate of Toronto University, recently wrote: "Cystex's influence in aiding the treatment of sluggish Kidney and Bladder functions cannot be over-estimated. I have here a formula which I have used in my own practice for many years with excel-



Dr. T. A. Ellis

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Dr. C. Z. Rendelle

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I've ever used"



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DEAN**
of Probak

NOW!
**PROBAK
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Thanks for the compliment. And now that you're a Probak fan, you'll be glad to know about Probak Jr.—the wonderful new double-edge razor blade that brings you real shaving comfort at a record low price. Imagine getting 25 keen, smooth-shaving blades, backed by the Gillette name, for 59¢!

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*Probak Junior is a product of
Gillette and fits all Gillette
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plump, tender, juicy

SALT MACKEREL FILLETS

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TASTE THEM AT MY EXPENSE



Just what you want for a hearty breakfast!

You'll never know how delicious fish can be until you serve some of my mackerel fillets, prepared the Down East way. It will be the rarest treat you've known in months.

Take one of my new, small, late-caught mackerel fillets. Freshen it. Broil it in its own juices to a tempting brown, until the rich, tender meat falls apart at the touch of your fork. Serve piping hot. Your mouth will water at its appetizing aroma. You'll smack your lips over its wonderful flavor.

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But you must get the right kind of mackerel fillets—the pick of the new late catch is what you want—to get this real food joy. That's the secret of the tempting goodness of my mackerel fillets. I send you the choicest fillets that are carefully sliced from the fat, tender sides of the new late-caught mackerel. Practically boneless, no waste parts whatever, these mackerel fillets are so tender and full bodied that they just flake into juicy mouthfuls.

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Just send the coupon below or write me a letter, and I'll ship you a pair of 18 small size tenderloin mackerel fillets—each fillet suitable for an individual serving. My fillets come to you all cleaned—no heads—no tails—no large body bones—no waste whatever—just meaty fillets packed in new brine in a wax-lined wooden pail. Taste one—broiled the Down East way. If not satisfied it's the finest mackerel you ever tasted, return the balance at my expense. Otherwise, send me only \$2 within 10 days. 200,000 families get their sea food from me this "prove-it-yourself" way. I've been doing business this way for 49 years and I must say that this is the lowest price for this size pair of mackerel fillets I've ever offered. Send your coupon today for this real Gloucester treat.

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Delivered FREE! Anywhere in the United States

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My dear Mr. Davis: Please send me, all charges prepaid, a pair containing 18 small, tender mackerel fillets, clear fish, no heads, tails, or waste parts, and practically boneless. If, after trying a few fillets, I am not entirely satisfied, I will return the rest at your expense and will owe you nothing. Otherwise, I'll send you \$2.00 within 10 days.

Name

Address

City

Bank or other reference

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AMAZING STORIES

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T. O'CONOR SLOANE, Ph.D., *Editor*
Editorial and General Offices: 461 Eighth Avenue, New York, N. Y.

Extravagant Fiction Today Cold Fact Tomorrow

Atmospheric Layers

By T. O'CONOR SLOANE, Ph.D.

MAN has lived on this sphere of ours for many generations, contentedly we may presume, inhaling the diluted oxygen of the lower layer of the atmosphere. He has always explored the surface of the earth, extending the work of exploration year after year, until there is but a small proportion of the work to be done to bring our knowledge of the earth's surface to completion. Especially the last few decades, by increasing man's speed by the airplane, have abbreviated the time required to travel through space, as we term it, until it seems that we are going quite fast enough. The Romans travelled extensively with their armies, making mile after mile with steps of about thirty inches. Two of these steps was the Roman pace, a thousand paces constituted a mile. The latter name is derived from the Latin word for one thousand. All this was done at a rate of most uncertain distances covered in a day. Ten or fif-

teen miles is a good day's march for a soldier carrying his load of arms, ammunition and general requirements. An army's march of forty miles in a day is credited to the French soldiers under Napoleon.

And now the average day's march of a foot soldier can be covered by modern transportation methods in a time ranging from fifteen minutes for an everyday, 'old fashioned' railroad train to three minutes in a high speed airplane.

This has little to do with man and his atmosphere, except that the air supports the airplane, but it gives us an impressive comparison. With all his progress, horizontal progress we may call it, man has never risen more than possibly eleven miles from the level of the sea. He lives in the troposphere; comparatively few people can climb a mountain over four or five miles high on account of the rarefaction of the air. A number of lives have been lost in attempts to climb Mount

Everest, a mountain less than thirty thousand feet high. Man is virtually confined to the troposphere, the lowest layer of the atmosphere and cannot go to its upper layers by his own power.

Above the troposphere merges into distinctly different layers, the stratosphere, the first one, where there are virtually no clouds, no tempests and which is so much the ideal region for air-travel, that advanced views are held that it may yet be the atmospheric ocean for rocket planes. Travellers in it would have to be hermetically sealed in the airships, with artificial air supply, air purifying apparatus, and protection from the intense cold, and from the intense heat, for both may be said to coexist there.

The atmosphere plays a part in wireless communication. Except for its part in the work a wireless message could not be sent around the curved surface of the earth to Europe or Asia or to Captain Byrd in the Antarctic. This is true for the radio wave is a strictly ether wave and simply penetrates the atmosphere in radiating waves, the 'lines' of radiation being straight. Yet some change has to occur to get the radio message around the curvature of the earth. It does not curve in its travels.

The atmosphere's first two layers, troposphere and stratosphere, with a sort of transition layer, the tropopause between, is simple and easy to picture to ourselves. The two or three, counting the intermediate tropopause, carry us up about thirty miles from the surface of the earth. Above this there are other layers, and it is not certain how many there may be. Among them, just above the stratosphere, there is a layer called originally the Heavyside layer or the Kenelly-Heavyside layer, which is virtually impenetrable to radio waves of the usual lengths. Short waves, of the DX variety can penetrate it, in part at least. But the all important rôle of this layer is based

on the fact that it is impenetrable in great part to our ordinary radio waves, and can and does reflect them back to earth. When the reflected waves impinge on the earth they are again reflected, this time away from earth. Thus the radio waves can be pictured as going around the earth in a series of saw-tooth patterned paths. Taking the circumference of the earth as about 25,000 miles, a radio wave should go around it in about one divided by seven and a half second, or $10/75$ second, zigzagging back and forth from earth to the ionized layer, the so-called Heavyside layer, and back over and over again.

While Heavyside affirmed the existence of the layer, he based it on more or less original mathematical calculations, which seem to have met a poor reception from the science world of that day, and operated to prevent its favorable reception. This was before Einstein taught the world to accept new mathematical operations. But it gradually won a place for itself and only now is being subjected to various modifications; but its name remains and is regularly used by radio workers to designate it, although as further investigations are carried on the constitution of the atmosphere above the stratosphere is being determined as more complicated than it was supposed to be some years ago. This change in views is typical of many phases in the progress of natural science. Time and again theories of natural science have been formulated and have lasted perhaps years, then to be upset, or perhaps only modified, or definitely abandoned for some new ones to be discarded in their turn. In the "sixties" of the last century the atomic weights of about half of the elements as then known, were taken at half their present value. Oxygen now 16 was assigned an atomic weight of 8, so that the formula for water was $H O$ instead of H_2O as it now is. A similar halving of

atomic weights held obstinately against what was called the "new system."

So now instead of the one Kenelly-Heavyside layer we have an ozone layer above the stratosphere starting at 16 to 30 miles above the earth. Then at about 70 miles there are three ionized layers now called the Heavyside layers, perhaps because one name is shorter to handle than two. These reflect long radio waves, so that the waves are carried around the earth. Then above the Heavyside layers at 140 or more miles from the earth is the Appleton layer which reflects short radio waves. These distances between the atmospheric layers vary from time to time.

But there are undoubtedly more layers than the few just named lying above the stratosphere and ozone layers. The only method of exploring the layers is by radio. The Heavyside layers reflect long waves, while short waves go through them. In going a long distance, the bound and rebound of the wave increases, by what may be called a minute quantity, the time required to go a given distance. We are dealing now with a velocity of about one hundred and eighty-six thousand miles a second. The radio waves reflected from the Heavyside layers to the earth and back again in the "saw-tooth" pattern do not expend enough additional time for us to know much about it. But when we use shorter waves, that can pierce the Heavyside layer and which go well over one hundred and fifty miles, sometimes two hundred and fifty miles into the upper atmosphere before they are reflected there is a measurable increase in time to go a given distance on the earth. This is shown by the radio echo.

And this is another phenomenon in radio action, which at least suggests a story. Sometimes a message is received instantly and is followed by its repetition its "echo" as it is very properly called.

This indicates that the radio signal has gone in part to its destination, and in part out in space to some layer as it may be called, which reflects it back. A difference in the time of the direct and the echo reception may be enough to be measured. If it is but a single second it would indicate that the signal had gone out over 90,000 miles into space before returning to earth. This is over one-third of the way to the moon.

A number of observations on radio echoes have indicated journeys far out into space. As much as thirty seconds have elapsed between the sending out of a wave and the reception of its "echo." This was calculated as indicating a journey out through space of eleven times the distance of the moon from the earth. If this is a case of simple reflection, what can there be, 2,800,000 miles out in space, to reflect short length radio waves back like echoes to our mother earth?

Professor Auguste Piccard says that the stratosphere is destined to be the course or atmospheric layer for the airplane of the future. Its freedom from atmospheric disturbances tells in its favor, and there is no blind flying such as that experienced when an aviator enters a cloud. The earth will not be very remote, perhaps in the neighborhood of ten miles. But at this height above the earth there would be so little air that the rocket propelled plane, which we would have to call it, would no longer have the requisite upper wing surface vacuum to pull it up, because it would be in an approximately vacuous region. Its ceiling would be practically airless. The only conceivable way a stratosphere ship could progress would be by rocket discharge. Steering it and changing its vertical angle of flight would have to be done by rocket reaction. This reactionary propulsion is more effective in a vacuum than in space containing air or other gas. In the latter the energy of the rocket dis-

charge is only partly expended on the ship, the air or gas absorbs a considerable part of it. But in a vacuum all the reactive energy would be absorbed and utilized by the ship.

The several layers above the stratosphere proper have been studied experimentally up to an elevation of one hundred and fifty miles—about one hundred and forty miles beyond the reach of mankind. It is radio that tells the story of the ionospheres, such as the Kenelly-Heavyside and others still more remote. We have already told of the impenetrability to long radio waves of the Heavyside layer, as it is usually called, leaving off the name of Kenelly. The reader has been told that shorter waves would penetrate it. If of greater length, radio waves would be reflected from it, and would not be lost by penetrating and this is what really happens. This would give a repetition of a radio signal and half the length of interval between the instant of production of each signal and its echo would give the basis for calculating the distance of the reflecting surface.

In this way the various layers have been identified. Radio waves short enough to penetrate the lower layers, would be reflected from the higher ones, and in this way a real practical study of the layers is carried on from the elapsed times of reflection of radio signals.

We are told of inhabitants of the tropic zone who wear rather heavy clothes, they justify the practise by asserting that thick clothes keep out the heat.

This represents an important function of the earth's great blanket, the atmosphere. It has a double function to perform. It moderates the heat emanating from the sun. It contains moisture, the vapor of water, or as it may be very

properly, called gaseous water. The other two constituents, oxygen and nitrogen, make up, by a great preponderance, the general composition of the air. The moisture in the air, affected by dust forms clouds, in this way increasing the moderating effect and action of the air. The air may be said to act like heavy clothes worn by the dwellers in the tropics just referred to. In the day time the air with its clouds cuts off a part of the radiated heat of the sun. The earth is protected from the heat of our luminary by a coat many miles in thickness. Without an atmosphere the heat of the sun impinging on the earth would make it extremely hot.

But our atmosphere has another important function.

The air at night operates to prevent the chilling of the earth. It has been warmed in the daytime and the heated blanket as it may be called prevents the great loss of heat at night, which might make the cold unendurable. Thus the moon is pictured as being extremely hot on its sun-lighted hemisphere, while absolutely frigid as it looses the sun's rays on the dark hemisphere. This is because it has no atmosphere.

As we go up a mountain or ascend in a balloon the cold increases as we rise. This is also shown by the snow on high mountain tops. But it is believed that, at still greater heights, space unprotected by the air blanket may be comparatively warm, under the effect of the sun's unblanketed rays. In the stratosphere the hermetically sealed car or cabin, sometimes becomes quite hot under the effect of the sun's rays.

Sometimes we feel, that as we have changed the old time conceptions of the temperatures of the air, further revision may be necessary.

Conquest of the Planets

(Mother World)

By JOHN W. CAMPBELL, JR.

We now follow up the Polshins, sitting quietly in supposed security and in control of the earth and of the Plehbs, the common laborers and almost slaves. But it will be found that some of the Plehbs have intelligence and brains, and the story goes on to tell of the exploits of the leaders of the servile class and brings us a step nearer to the climax of this Campbellesque story.

Part II

What Has Gone Before:

Phillip Lauri designed the first rocket to reach Phobos and Mars from earth. For nearly three centuries earth sent her finest people to colonize the planets. The only government of the planets was in the Interplanetary Transportation Company's own Executive Offices and the people were happy. Several nations on earth felt that they had a definite right to the control of the planets and called a conference to establish their claims. At the conference, John Montgomery, Terrestrial President of Interplanetary, unloosed a bomb shell when he stated that the planets belonged to the citizens of the planets and not to any country or countries of earth. The Interplanetary Union decided to completely withdraw all relations with earth.

Earth had deteriorated greatly during the centuries following this withdrawal. There were two factors, the Polshins, the ruling power, lived on the surface; the Plehbs, living under the surface, included the Blues, Greens and Greys. Through the greed and selfishness of the Polshins, the arts and sciences were lost to the world.

Bruce Laury, a Plehb, descendant of the great inventor, Philip Lauri, discovers the deserted section which had been the glory of the old world. The building which interested Bruce most was the library containing thousands of volumes. Books were so rare among the Plehbs that the library seemed a stupendous discovery. Here he and his chum, Don Wade, spent all their spare time, delving into the secrets of the past. As they grew older, their sole ambition was to improve the prevailing conditions on earth and bring it back to its former high plane of learning and democracy. The Plehbs were communicated with in other cities by means of television and soon there were thousands of these suppressed people all working for the "New Freedom" movement.

CHAPTER VI

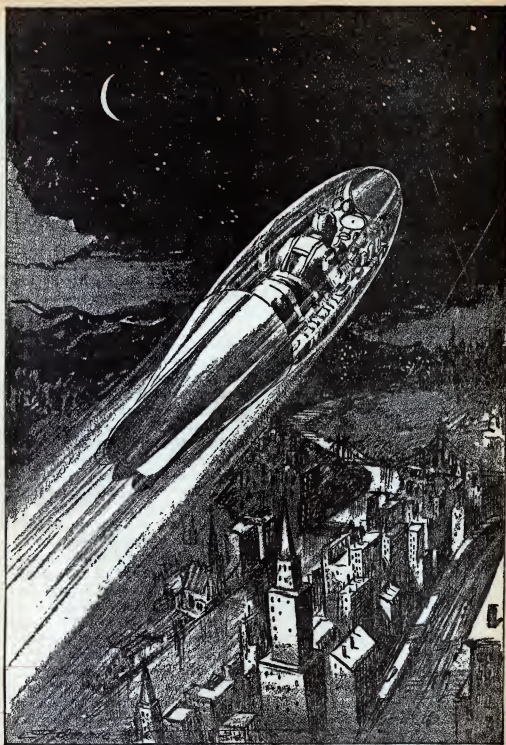
"I AM going to try the new device, Lora. You have taken all those notes, and have them in a safe place?"

"Yes, but oh, Bruce, why can't I try that for you? You know what has happened even with the little transportation devices. If that succeeds too well—the earth needs you Bruce, as she never before needed any man."

"And I need my self-respect," Bruce replied grimly, "Just as much as any man ever needed it. The Polshins let others suffer pain and death for their amusement or advantage. I'm not a Polshin. I'd never be able to look a man in the eye if I were afraid to do this, and delegated the danger to someone else."

"Can't you make a robot do the thing for you?"

"Again? Can't I convince you that the difference between a man and an intelligent machine is that a man can do what he wasn't designed to—that a machine, no matter how perfect, can't handle an emergency I haven't prepared it for. And



At a speed of nearly a thousand miles an hour, he hovered over Boston in fifteen minutes. There were lights below, the great illuminated pleasure palaces of the Polshins.

since I've done everything in such a way, I don't expect any emergency; that means that if there is one, any machine I designed would be unable to handle it because it was an unexpected emergency. Now you do as I said, Lora. Take the notes and your own small self to a safe place. Go back to the lab."

Lora turned abruptly and raced away. Bruce grinned after her. He looked again at the apparatus she had helped him build and set up. She was an excellent assistant. She would know what to do if this did blow up. Bruce chuckled at the thought. If it did, working with a one hundredth milligram charge of lithium metal as he was, it would cause a bit of confusion among the Polshins. Lora did not know why he had picked this particular room on the highest level. That he had gone as far as possible up and away from the Mahtan section of the city, she understood. But why this particular room—?

Omallin's fine palace was directly above this room. If Bruce's experiment was unsuccessful, he would remove Omallin, and half the neighboring territory.

Bruce watched the tubes carefully as they heated, and looked again at his stack of accumulators. The power was not on in this distant section, so he had brought his stored power with him. Under the present current drain they'd give out in about three minutes more. Be embarrassing to go back to Lora and tell her he hadn't even been able to try the thing because he hadn't calculated the power factors right. She'd never trust him after!

Bruce jumped as a meter needle rose suddenly and steadily. The electron current had started.

"Well—it's been a nice time, anyway," he laughed. He pushed the control over steadily. Something strained violently. Abruptly, from the small open coil on the table before him, something beautiful and

violet and shining sprang like a burning globe. For a billionth part of a second it lasted, perhaps, then it relapsed suddenly as a mighty tongue of lightning struck down from the granite rock. It struck with a terrible roar, and the apparatus fused in a blinding, incandescent mass, beneath the terrific assault. A roar of awful sound crashed out. Then instantly from the fused apparatus another mighty tongue of electric flame smashed out with equal and opposite titanic power. The rock wall fused, and a great soft drop of liquid rock slipped silently down upon the floor. A cavity two feet deep remained.

But Bruce did not see it. He was motionless and unconscious on the rocky floor.

IT was some fifteen minutes later that Lora and the rescuing men reached him. They were breathless and panting from much running. One of the medically trained men was first to reach him. In an instant he had an electro-stethoscope microphone on his chest. The room echoed abruptly to the powerful, even thump-thump-thump-thump of Bruce's heart. There was a soft, gentle swish of breathing.

"Ah—" Lora darted forward, took a single glance at the wrecked apparatus, a second glance at the recording instruments that had been put on the other side of the room. "Momentary, very short waves. He may be badly burned by them. Now hurry. Jak, Mark, Bob and Pol, take him, and hurry away. Tom and Ban, you take these instruments, and be careful with them. Mal, you take the asbestos things, and scoop up that mess. Now sharp, the Polshins will be here in a moment. I know why he took this room now—it's right under Omallin's place. I'll bet that electric field turned Omallin inside out when it hit him. He'll be searching down here in half an hour."

Three minutes later, the room was bare. Only the red-hot glowing stone attested to the sudden release of energies stolen from the heart of a sun.

Bruce came to in the laboratory. On the bench was the fused apparatus, cool now. Lora was bending over it, making notes. A tube of liquid carbon dioxide told how she had cooled it, without damaging the sensitive bits that might remain.

"Lora—you watched—the telectroscope?"

"Naturally, Bruce," she snapped. She was still tense, and her nerves unsteady. She had watched, and her heart had contracted once, and stayed just that way, a tense hard lump in her chest till she heard the thump-thump-thump in the doctor's electro-stethoscope. She was still nervous—and angry in consequence. "You passed out, and I thought you were dead. Did you see it?"

"No," replied Bruce ruefully. "Only the violet glow."

"That was cosmic ray energy. Lucky it was so hard a radiation. It passed through you like light through glass. Went through so easily, it didn't burn you much. Lasted an infinitesimal time, anyway. But immediately after that, the lightning started. First one bolt from the wall to the apparatus, then the wrecked apparatus replied in kind."

"Kind of it," smiled the scientist. "It let out all that energy in two doses instead of one."

"Think again, Bruce. Wait till you come around. And tell me what you expected, anyway?"

"I wasn't sure, but sort of had a hunch it would be electricity."

"It was. An electric field. It was positive, under the conditions you set up, and it built up to about a million volts instantaneously. Then the wall sent a collection of electrons to neutralize it. They did, and when the last of the mat-

ter was used, they were left as a negative charge of a million volts—and went home again."

Bruce sat up slowly. "Why Lora—I didn't think it of you! You are hereby graduated to a first-class independent experimenter. I had no idea you'd found time for so much studying."

Lora felt her heart sink gradually downward, till the touch at the soles of her shoes arrested its progress. Bruce meant it. She would be promoted to an independent investigator's rank. No more work with Bruce. No more even touching his hands at work. No more—"

"I couldn't help it with you giving me lectures every time you dropped a bolt."

"Anyway, you need a nurse. If you expected an electric field, oh Bruce, why didn't you use those brains of yours and put in a discharge point?"

"Unexpected emergency," grinned Bruce. "I had a number four-ought conductor. I expected currents, not lightning bolts."

"A machine could have done a lot better than you did," scolded the girl. Her face was beginning to feel warm again, so she knew the blood must have come back now. She turned from the apparatus, and looked toward Bruce once more.

"All right, girl. I'm clear licked. You can start right now investigating machines to test machines if you want to."

"I'll finish this job first," she said. She'd meant to speak firmly, and a bit sarcastically, but she realized as it sounded, it was more like a plea.

"**A**LL good. Then we'll start right now making another one—because, Lora, that machine *successfully released all the energy of the matter it worked on!*"

They started another machine, but Bruce realized now what sort of thing he

had to deal with. Unlike atomic burners, with their constant streams of electrons at one plate, and protons at the other, uniting to produce tremendous currents of electric power and hydrogen gas, he would get from his machine all the energy of the destroyed matter.

"The waves of the atoms—they aren't real waves—just something that can be expressed by the same sort of formula a wave is expressed by—are all turned one way or the other, with the result that a space-curvature results. I expected a positive electric field then. I could as easily have gotten any of the other space-strain energy fields either magnetic, north or south, or gravitational, *plus* or *minus*. In the new machine, I'm going to use a powerful accumulator-device. The positive field will be created momentarily by the release of a tiny bit of energy. This will draw a tremendous negative charge. Then the field will collapse, and the result is a free negative charge which will seek neutralization. It will yield directly an alternating current of whatever frequency I want. And whatever power I want.

"I can even use this to create directly the momentum waves we discovered.

"And Lora—Lora, with this I can build a tiny hundred-man scout-ship that can yield a hundred billion horsepower—and never overheat because an electric field is one hundred per cent efficient!"

Bruce was overconfident. He built his apparatus. He tested it, and the tiny thing, no more than three by three by two feet, yielded three million horsepower—and fused the conductors that conducted the current. His electric fields *were* one hundred percent efficient, but his conductors weren't. Never before had conductors been called on to handle such powers, and still be small conductors. Somehow he must find a conductor that was as efficient as his material-energy engine.

SO—Lora was given the job of investigation, while Bruce began work on some small ships. Two-man ships. They were powered by small models of the material-energy device. Four by four by three they were, because no smaller machine could contain the huge conductors he needed to carry the power. But there were two other material-energy engines aboard. One created the momentum wave, releasing its energy directly, without conductors, in this way. It could have generated at nearly fifty billion horsepower. The other created the anti-gravity field.

The work was needed now. N'yak was nearly unified in the Freedom movement. Slowly the Polshins were becoming aware of something unusual. More and more the Polshins guards really looked around, as they wandered through the streets, really noticed the sullen looks they received. This must have been strange to them. Before, they had been as inevitable as death or taxes in the Old Days. They had been accepted in much the same spirit as those two visitations.

Their shock-rods came more and more into evidence. Strangely the Mating Office was almost deserted now. Only greys, and an occasional green couple wandered in.

All the Blues, and most of the Greens had joined the Freedom movement, and there was a tense air of waiting among them. By cosmetics and skillful stage-tricks learned in books, the beautiful women were making themselves ugly. By tricks they made themselves inconspicuous, and with the new, slightly worried air of the Polshins, no more Plehb girls disappeared from their homes.

Just as the new scout-machines, the fleet of six, reached half completion, Don Wade called Bruce. The secret of the isolation of earth had been learned.

Interplanetary Union Hall at Mars

Center had been located. It had been explored, the nine rooms of the Nine planets investigated. A tenth room, with a great seal across it stood in its place. The door was marked "Earth" and below it was the legend:

"I, John Montgomery, have sealed this door in the year 2654. It is not to be opened save by the combined order of the Ten Planets, and then only when earth, the third planet, shall have again won her place among the Councils of the Planets, and shall have redeemed herself by the re-arising of intelligence among her people."

Don Wade directed the focus to the room within. It was a great room, with a board, long table, and large comfortable chairs. There were books and maps lining the walls. And dust covering all. Dust a quarter of an inch thick lay undisturbed everywhere. At one end of the room, carved in heavy, thick gold, was a great metal plaque. A bas-relief of earth, with a tiny space-ship leaving her at the top, and below a graven inscription. It was the full text of John Montgomery's farewell to earth.

Slowly Bruce read it over. Then he nodded slowly. "He was right, Don. That John Montgomery, speaking just about seven centuries ago saw what was coming. The Polshins must have overcome those semi-Plehbs soon after. That is why the libraries were closed, all civilization seemed to stop suddenly. For the last two centuries earth's civilization had really been maintained by the work of the Planets. Without them dragging her up, earth fell back instantly to this savage feudalism of vicious pleasure for the Polshins and victims' toil for the stupid, brainless Plehbs.

"Intelligence has arisen again, Don. And today we could go to Mars and redeem earth. We have the ship—or will have it—within two weeks. The electrovisor here alone would fulfill Mont-

gomery's condition and with material energy—"

"THEN we shall!" Don cried! "With the Interplanetary forces behind us, we can wipe out the Polshins in a day!"

"That is not what John Montgomery meant," said Bruce shaking his head gravely. "He meant that *all* the people of earth should be rejuvenated. We must break the bonds ourselves. We have done only half the work so far.

"We will not go until we can lay down as our claim to redemption, both the inventions and the overthrow of the vicious order that exists. What would Mars reply to such frightful scenes as we picked up that first night we demonstrated the machine? While our women are still being beaten to death by Polshins, we cannot claim redemption.

"This offers only one hope. When we have done this, and have overthrown the Polshins, we will have redeemed the pledge. Then we can have competent teachers from the Planets. In a day we will have the benefits of a civilization we would be able to gain only through many years of teaching and working.

"Until then—we have a titanic task to work out. Your staff has selected the leaders in the other cities?"

"Yes," Don nodded. "I see you're right. And we have the men selected. When will you begin projections?"

"I will begin the day the ships are finished. I think our best plan will be to reach these men by projection, warn them of what we have, and then lead them to some spot in their own Deserted Corridors, and arrange to meet them there."

"We should have more men working here with us permanently. This tiny force is hard put to do more than maintain themselves, let alone all the construction work we require."

"Not another man may we take. Already the Polshin Guards are so suspicious that we cannot afford it. And you know it."

"I have been distributing those little sets you designed," Don sighed. "The men have been able to take them home and conceal them. I have given all the delegates sets, and some of the best of the other men and women. They are holding small meetings in homes now and watching us, and people in other cities with them. Particularly are they showing scenes in Old Mahtan where we have the Old Days living again. That naturally interests them most." Don smiled slightly. "But some of them have begun asking if there is any way to stop these machines. They fear for their privacy eventually."

Bruce burst out laughing. "A thought—a thought the scientist had overlooked. Yes—privacy. I can stop them. A small machine something of the same nature as the projector will instantly warn of the thing, but it will take a bit of work to design a machine to stop it altogether. I think I can do it though, eventually."

CHAPTER VII

"**T**HAT will do," said Bruce. A tall, straight man, with just a touch of gray sat in a sturdy comfortable chair on the stage of the big machine. He seemed unaware of them, bent in deep concentration over his book.

"This is Wil Carny, of Boston. He is a Class A Plehb, a first degree Master of Meks. He is thirty-two years old, a man well liked, and in every way a fine man for the purpose he is to serve," explained Don Wade to the audience grouped about. "He is mated, and has a son, twelve years of age, already a class C apprentice of Meks. Bruce Lawry is to be projected. His voice will be sent first."

Bruce stepped forward. "Wil Carny," he said softly. The seated man started slightly. "Wil Carny, Master of Meks, listen carefully to me. In a moment I will make myself visible. I was a Class A Plehb of the city of N'yak, a master of Meks myself. Now I am a scientist of the Freedom League of N'yak." Carny had risen, and was looking intently, half fearfully about him. "I need your help, Carny. You are a Mek. You were reading, I see. Have you read of the televiso system that was used in the Old Days?"

"Yes—" said the man. "Where are you?"

"I am in N'yak now. I am using such a televiso system. I can see you—and now, you can see me."

Suddenly there was an image of Bruce standing beside the image of Carny. Carny started back, and looked sharply at the white-clad figure.

"At least you look no Polshin," he smiled at length. "Can one so immaterial be seated? If so,—" he waved at the chair.

Bruce smiled. "My advisers have chosen well. You are a man, Wil Carny. Surely I would have been worried by so inexplicable an appearance. I cannot sit in your chair—for I am two hundred miles away. Do you know of the Old Days when men knew more? When they knew why atomic burners worked, and could design them? Do you know of the days when there were no Polshins? I have, with my vision machine, watched your Polshins there in Bosn. They are no worse, nor better than ours in N'yak. They have taken your women. Our machines have shown us what treatment they have received from those Polshins.

"In N'yak we have sought, and found a way to freedom. Not only for us, but for the Plehbs of every city.

"You have visited the Deserted Corridors of your cities have you not? Go

to them, and I or my friend will lead you. In half an hour, I will join you there in the body. And I will bring you to N'yak here for a short time. You have still eleven hours of freedom. Will you come?"

"I will come," nodded the older man. Bruce's image faded away. The stage cleared.

It was night, dark on the Surface they knew. But never had one of the ships been tried outside, only in the corridors and Cubes below, and then cautiously. Now Bruce entered the tiny fifteen-foot metal thing, and placed himself at the controls. Gently it lifted. Four hundred men and women waved silently to him as the tiny ship turned, and sped down the corridor, and out of sight. A rim of light preceeded it down the dim rocky walls. It disappeared.

Cautiously Bruce drove on. He rose vertically toward the Surface. The tube ended, he knew, in a great metal lock. For centuries these locks had been untouched. But just that day a crew of men had gone there, tested them, oiled them—but not opened them. Bruce sent a brilliant pencil of light on the photo-cell and waited breathlessly. Outside he knew the Polshins had left them unattended till dirt and rubbish had overgrown them. A crew of men would visit them after he was through for the last time, and cover them again with dirt and rubbish. Later they would make their own smaller lock—a hidden one.

The lock groaned — and opened. Bruce's tiny ship darted up straight into the sky, lightless, soundless. At an altitude of ten miles he leveled off, and shot toward Bosn. Over dark terrain, lighted only by the faint stars, and a crescent moon, the ship sped northward. At a speed of nearly a thousand miles an hour, he hovered over Bosn in fifteen minutes. There were lights below, the great illuminated pleasure pal-

aces of the Polshins. Skillfully, as noiseless as a bat, the ship dropped. Here Nature had favored the Plehbs. The lock was inexposed, rocky land, the bare metal showing. No crew need recover it. That was one reason Bosn had been chosen for the first contact.

AT Bruce's signal, the great metal disc swung aside, its century-old bearings groaning faintly. They had built well, when seven centuries before, that lock-door had been made.

The ship dropped through the opening. Starlight sifted down the tube lightless for ages. The ship turned at the third level, and traveled for nearly three miles horizontally. Then, in a great, ruined Cube it halted.

A Cube lightless, and rubbish-floored. Bruce turned to his telectroscope, and sought Wil Carny. He was not in his room, but Bruce quickly located the field of another telectroscope, and found Carny half-way to the Cube already. Patiently he waited.

Half an hour later Wil Carny was shaking hands with him. His eyes were deep and intent as he gazed at the man and the ship. "In this we go to N'yak?" he asked.

"Right," Bruce nodded. "There you will meet the others, and see the machines—and see what earth was in the Old Days."

In silence disturbed only by the soft, faint whispering of rushing air, the ship slipped down the corridors, and up the tube, out the lock and into the clear, starlit night. Carny gasped at the beauty of the scene. Never had this man been on the surface at night before, never had he seen the beauty of a star-strewn sky, or the silvery moon. Below, endless, broad gardens stretched, soft-lighted with the silver-rose of the glow-tubes. Myriad lights twinkled in the wavelets of Charles River basin on little pleasure boats from

fairyland. Two miles below the hovering ship, the whole scene seemed an artists epitomisation of beauty.

Bruce started the telectroscope, and figures of men and women moved on its stage. A boat with colored lights moved slowly across the tiny pool of the stage, then a pier, then a flower-filled garden.

Then another scene. Polshins, and a plehb slave-girl. One of the Polshins was holding a robe, the others short whips. In vain the girl was trying to reach that robe, the whips cutting at her when she paused, or when she came near the robe—

Carny's face went white and tense. His eyes flamed with sudden anger. Gradually his face relaxed as Bruce cut the scene. Knowing where to look, they could see the circle and the figures on a flower-boarded lawn, two miles below. Wistfully Carny looked down.

"Your freedom movement is needed Bruce Lawry. I suppose—" he looked at Bruce thoughtfully.

"No," said Bruce. "Nothing. It is not the first time I have seen such things. I have had to console myself with the poor thought, that shortly it will be ended. I fear only one thing in our movement, Carny. The Plehbs will have a very strong, and very natural tendency to do just such things to Polshins, as Polshins have done to them.

"THAT is what happened in old Russia. The Nobles, some of them, ground down the peasants as cruelly as the Polshins have treated us. When the peasants rose—it was quite natural that they should treat the Nobles so. You have not read of that, probably. The peasants were strange, yet human. They rose, because the Nobles had judged not the man, but his ancestors, and then the peasants gained power and they judged not the man, but the man's ancestors. I

fear this freedom movement may tend to the same thing, later.

"You do not know of the Pledge of the Planets. If we institute a system as brutal, as vicious as the present one, merely reversed, earth will no more have redeemed the Pledge, than she has now.

"You must remember this in the things you will see. It will be very hard, it is hard for us, even the leaders who should be better. You will meet Don Wade." Briefly Bruce outlined the story of Dot Steel, and Don Wade.

"The ancients said of Helen of Troy, that hers was the face that launched a thousand ships. Dot Steel's was the face that launched a million men. Don Wade is bitter. You will, we hope, lead Bosn to the new Freedom, but you must remember always that it is to be a new freedom for *all*—Polshin and Plehb alike. That is a task harder than gaining freedom. We will not, I know, gain it at once. Interplanetary has pledged to help earth in finishing the settlement of her problems, and we will have to call on them for that. But even so, that the Polshins will suffer during those first few years an oppression nearly as severe as that we suffer now, will perhaps be best for all. For they must learn that others have rights and powers, and the Plehbs must learn to aid his fallen enemy to rise.

"You will soon be there. We are within miles of the lock now, in a few minutes we will enter. Remember this, when you see what you shall see."

The crowd was waiting in the hall as silently patient as when Bruce had left. Wade was the first to shake Carny's hand. "This means more to earth than you yet know, Carny," he said. "For the first time in seven centuries, the peoples of two cities are in direct communication. Not the Polshins, but the people."

Slowly the crowd moved away toward

the restored section of Mahtan. In wonderment Carny looked about him. The crowd had been well disciplined for this occasion, there was no grouping, but free movement along the moving walks, through the lighted shops, and into the theaters. Despite their strong desire to crowd about this man, this man from a city as distant to them as Mars had been to Caesar, they spread out, and brought to Mahtan again that semblance of life. People moved along, passed lighted shop-windows that displayed goods and advertisements of products that had not been manufactured for seven hundred years. The whole section had been made up from photographs seven centuries old.

IN Freedom Hall Carny saw the great telectroscope that had been set up.

"First," said Wade, "we want you to see the Pledge of the Planets." Bruce began operating the machine, and as Mars appeared as a great ball, slowly turning, slowly growing larger, Wade told Carny briefly and concisely what the situation had been seven hundred years before—and since.

Interplanetary Hall appeared, grew, and they were inside it. Swiftly Wade finished his explanation as the great golden Plaque appeared. The hall was utterly silent as Carny read the words of Montgomery on the Metal Surface.

"The man was a prophet," he sighed at length. "Earth is ready again, I think, to ask the help of the Planets. But as Bruce has said, first we must free ourselves. I will do what I can. It will take a long time."

"Not so long, Carny. We have done a great deal of preliminary work for you, by telectroscope. We have found libraries, and laboratories, hospitals and universities, meeting places and machine-shops. We will give you electroscopes, smaller than this machine, but capable of seeing anything on any primary

satellite. Fifty of our trained men and women will go to Bosn with you tonight, and by tomorrow night you can have the Bosn organization started, for, by telectroscope and your personal contacts, we can cover fully a hundred before tomorrow night. And already we have investigated in that way over a half-thousand of the Class A Plehbs in Bosn. They will be the nucleus of your organization.

"We must act rapidly, for, when we strike, we must strike over all the country, and already the Polshins here are beginning to feel the tension. We can spare you no more than fifty of our people, for there is much work to be done here, and of our city of three hundred and fifty thousand, not more than three hundred and fifty can be permanently on our staff here without the Polshins missing them. You, with your three hundred thousand people, must develop an equal staff. To help you, we suggest that many of your people be brought here where our facilities are better, where they can work beside our trained men and learn. But—it is an enormous task. Will you undertake it?"

Carny's face crinkled slowly into a smile. "You investigated men, you said? Your judgement is good, I think, Don Wade. You know what my answer must be. I will. I will, and I will do my best."

CHAPTER VIII

A FLEET of twelve tiny ships made the trip to Bosn. Then they returned, for more people, more goods, and more machines. Swiftly, they shuttled back and forth through the black of night, and when dawn at last came on the world of the Surface, material energy engines, telectroscopes, foods had been carried. And most of all, a staff of fifty trained workers. Tech-

nicians had connected in the long-deserted circuits of the corridor lights the tiny but powerful material energy power-plants. Lights glowed brightly, and the whole section was lighted again. All the day men and women labored, labored as only a lifetime of labor can teach men to work. When night came again the chosen section of Bosn, the Bluill district, was cleared of rubbish. Windows were lighted again, a theater was open for the reel-plays, shop windows displayed goods, bright, attractive goods. The moving ways moved again, men and women rode on them. The Bluill district seemed again to live. And the Bluill Central Hall was clean and lighted, and on its stage was one of the big telectroscopes, mounted and ready for operation.

The manufactories weren't opened here yet, but foods, goods, a thousand things the luxury-starved Plehbs wanted had been brought from N'yak. Wade had learned well his psychology.

Nearly a hundred men and women of Bosn came that first night. Men and women known personally to everyone of the fifty technicians from N'yak, for they had met them, lived with them, by telectroscope. Carny led the first group, and even he halted in amazement as he reached the rejuvenated district. Last night he had passed this way—a dark, rubbish-heaped area. And now—

Eagerly the hundred were taken in charge. They looked, they wondered. They listened, and began to understand. Then the telectroscope functioned and first they saw Mars—Mars, of the smiling, care-free crowds. Thick crowds of gayly dressed men and women were there in the bright, golden sunlight. It was Mars of the towering graceful, air-washed buildings, glistening multicolored in the sunlight.

Then they saw beautiful sun-lit gardens of the Polshins in San Francisco.

They saw the soft-lighted gardens above Bosn. But another operator had been searching; the machine on the stage picked up what he had found—Polshins being amused, a Plehb-slave girl moaning on the ground. A low muttering ripple of sound ran through the audience.

The scene faded, and N'yak appeared on the stage, a scene in Freedom Hall. The audience was gathered there, and on the Freedom Hall stage appeared the scene in this very Hall in Bosn. The six thousand gathered in N'yak rose suddenly, a roaring cheer rang out from the speaker, a hand waved—Spontaneously, the Bosn people responded.

In that instant the friendship, the solidified feeling of real, close kinship with those people they had never seen, those people in the far, far distant city of N'yak, sprang up full grown.

Hours later the Bosn crowd spread out, seeking their ways homeward. Everyone was a missionary now, the New Freedom, conditions were so vastly different. The leaders were so different. There was an Ams, a Lozh and a Kabt listed on the rolls of the Polshins—contractions, modifications of names that had stood for the finest things in the Old Freedom.

IN N'yak work went on, harder than ever before. There were fewer trained hands now, and more unskilled workers from Bosn. But it was easier too, for the giant of Material Energy stood at their shoulders, pushing as they willed, lifting at their gesture. And Bruce had found the disintegrating machine. Tiny, ultra-microscopic bombs, scarcely more than large ions, were shot out against the rock or metal to be destroyed, and those particles released their energy of existence as an electric field of such unimaginable density, that mere atoms caught up in them were strained

beyond the strength of any possible electric structure. Abruptly, they collapsed, collapsed to electron and proton, to neutron and positron. No nucleus was left even, the very heart of the atoms was ripped to shreds. Free hydrogen was left over, the atoms themselves were decomposed. Free hydrogen gas rose from the working machine, and burned blue and pale in the glow of the lights. Otherwise there was little display, no more sound than a strange, eerie whispering of atomic death. All the energy was absorbed in breaking the atoms, the machine was efficient to almost complete silence.

Modified atomic burners had been able to transmute certain elements partly into certain other elements under certain conditions. This machine disintegrated the "certains" as completely as the rock. In a day, a score of men were released from the transmutation work, for a single material energy disintegrator could first shatter the atoms to gas, then whirl the shattered parts into whatever figuration was desired. The raw materials, iron and aluminum, carbon and sulphur, for foods and machines, became plentiful. And now the building of the greater ships, the battleships of the Freedom Movement, was undertaken. The "Freedom" ships were started before their plans were finished.

Three weeks after the first crew went to Bosn, they returned, and in their stead went the men who had been trained in N'yak. Bosn had established her own government. A second group was sent out, not technicians now, but teachers, a bare half-dozen men and women. The libraries scattered about Bosn had been moved bodily to the Bluill Central, and day and night three hundred studied as intently as it was possible for humans to study, humans trained to work. By night, a thousand more were added to the roll of students. And regular meet-

ings were being held, constantly growing meetings. Telectroscope theaters showed the planets and earth as they were at the moment; reel-theaters showed earth as it had been in the Old Days.

The day the Bosn crew returned to N'yak, the first contact was made with Felfya, Jon Roger had been chosen here, and entrance was effected by means of the disintegrator working under complete coverage. All one night a crew of fifty men had to work, and half the next night before the necessary locks had been bored, and carefully hidden. Then Jon Roger was contacted, and brought to N'yak, saw the scenes the telectroscope displayed, scenes from Mars, and from Bosn. And scenes in a Polshin garden above Felfya itself.

When he went back a crew of fifty technicians went with him. Two weeks later there was a crew of thirty Bosn men and women working in Felfya to hasten the work.

Meetings in N'yak were restricted, now that nearly all the members had the tiny telectroscopes. N'yak's main section must be given some air of normalcy. The Polshins were beginning to conduct occasional searches. Half-hearted—inexpert—but searches. More and more the crew in the Mahtan section saw the true size of their task. Yet Bosn and Felfya were barely able to maintain themselves, so much of their energies were spent in learning, desperately trying to catch up with N'yak, and pull their own share of the load.

A steady traffic of noiseless, lightless, black ships was maintained, carrying load after load of machines, mainly material energy engines, and small telectroscopes. And now loads were being sent to Felfya. For the party had caught, and spread as swiftly here as in Bosn.

Faster and faster the pace must be. For the Polshins, cruel as they might be by simple inconsideration of any save

themselves, were not unintelligent. In N'yak they had begun to re-awaken to the possibility of trouble. Soon there would be troubles at home. The movement must be well rooted elsewhere before this began.

IN three weeks more, Washton was contacted. And a week later, Bosn herself sent out an expedition, for what they may have lacked in training there, they made up for in enthusiasm, determination, and plain human knowledge. It took no skill or technique to interest men in such an obvious cause. The Plehbs were intelligent once more, only the spark of hope, only some indication that the thing existed, was needed to start them trying. N'yak contacted Shkaga for the Bosn crew that went out to take over. And they went in Bosn-made ships. The men of Bosn were skilled workers, the Mek Plehbs there had done the same sort of work the Meks of N'yak had done. They needed only to be shown how. Now Bosn was beginning to manufacture machines. Month succeeded month in bewildering, fast-spreading action. Nearly the entire Blue and Green classes of N'yak had been enrolled, most of Bosn, and Felfya, Shkaga and all three were producing now.

There were other inventors. But none equaled Bruce. Bruce was the one super-genius that must inevitably have arisen, as John Montgomery had predicted.

But Bruce had been able to devote little of his time to his real work. Too much had to be done in the building of the new Freedom. There were elected officers from every city in the Union now, and officers were elected who represented the Union Government. And Bruce had been made President.

It was too great an honor for him to refuse. His personality meant too much to the people. But he had done almost

nothing, it seemed to him. Still the "Freedom" remained incomplete.

Finally, he resigned his office. It was a difficult step, one that he thought over for hours before taking. But on the second anniversary of the first beginnings of the Freedom movement, the second anniversary of Dot Steel's loss, he resigned.

CHAPTER IX

YOU have carried on my work, Lora. I feel proud of myself. I never knew I was such a good judge of people," he smiled at her. "I am afraid I hadn't thought of this possibility. Do you think it can be done?"

Lora laughed merrily at his smiling face. Bruce was back in the laboratory again. And she was a full-fledged investigator, associated with him as an equal now—anyway, she was not a laboratory assistant. "What do you think I spent my time on it for, Bruce? Certainly it can be done. You tried the directed electric field, and got a 'little where' with it. But your 'columns of strained space' lacked electrons. Pure space-fields won't do some of the things you need, so I tried combining the best features of the two. I think that by putting your column of space through a silver bar conductor, you will get the effect of perfectly free electrons. Since your generator will give only alternating current, this will do as well. For some smaller apparatus, you will still have to use straight metal conductors, but you will need heavy currents for only two things—deflecting the enemy weapons and running certain of your own weapons.

"Most of the enemy weapons are electric in nature—accumulator shells, ball-lightning, ion-streams. I think a straight magnetic field generated by the material engine will stop that."

Rapidly she outlined her plan, watching eagerly the looks of approval Bruce gave to her calculations. Perhaps after all, this was the way. Bruce was not like other men.

But it also was the way to the completion of the "Freedom."

In two weeks of research, Bruce began to see the way to do what they needed, and in a month, the last stage had been reached. The apparatus was being installed in the "Freedom."

Other "Freedom" ships were being built now, in the other cities. The blow would have to come soon. The Polshins of all cities were beginning to worry. The Polshins Council at Washton had discussed the problem with gravity and real thought. The usual amusements were rather half-hearted, for this actual problem to solve—a real decision to make—made the usual social meeting unhappy—and troubled. The tension among the Plehbs had first been noticed in N'yak. Omallin it was, who suggested that he conduct a search, and find out if there were any such thing as a revolution in the air. He couldn't exactly imagine what a revolution might be, but it worried him. It might upset production seriously, a thing that had never happened in his life, nor in the lives of his forefathers for fifteen generations back.

The call went out from N'yak headquarters, and every member of the Movement hid his telectroscope more carefully. Not yet were the conditions right. San Francisco had been added to the Union so recently—it was not at all properly equipped. Perhaps, if this search were passed successfully, the pleasure-loving, thoughtless Polshins would decide that it was nothing, and another year even might be gained. Across the deserted belt of the Tropics somewhere were other cities they had not been able to contact, because of the difficulties of projecting images more than

1000 miles. Nor had they reached Europe or Asia. Many cities in North America were still unprepared.

Hurriedly arrangements were made by the N'yakers. This search was to be something such as they had never experienced. The Meks of the city were almost called in to fix up the old televiso system where possible, but Omallin was actually studying the problem. He had found a Plehb girl who could read, and she was reading to him out of the old books and papers of his forefathers. They told of earlier revolutions and precautions taken. Secrecy—thoroughness—those seemed to be the keynotes. So he did not warn the Plehbs by having the televiso system restored. That the Plehbs should know, he realized was a bad move.

The audience of two thousand Plehbs in N'yak Freedom Hall laughed at his decision, and a half million Plehbs, gathered in Freedom Halls over the greater part of the continent, laughed with them, as they watched the scene of Omallin's conference.

But they didn't laugh at a point Omallin had dug out and decided on. The records! The records were to be used to check up! Those deadly records—they, despite all else were accurate as a stock inventory ever had been, for to the Polshins the Plehbs were stock, stock for their use, and these deadly records always had been used. Every Plehb must be in his place, when the check-up was made, every absence accounted for.

HASTILY a council was called. Men and women from Bosn, from Shkaga and from Felphya came in to help, to maintain the Mahtan district. To fill vacancies. For since the Freedom movement started, the Plehbs had not obeyed all the laws. Nearly a score had died, and their deaths had not been properly reported to the Polshin medical offi-

cers. For the Freedom doctors were infinitely better. The telectroscope was a diagnostic instrument such as even the men of the Old Days had never had—when the organs of the patient could be examined in action with precision and ease by the doctor. And these doctors had trained themselves from the old, accurate books.

Further, there were three hundred and sixty-two adult members of the permanent staff—and over half had married. Few of these were married according to the records of the Mating Office. They were married here in Mahtan, married, not mated according to the laws of the Polshins. And there were forty-five children.

Hastily men from the other cities took the places of the dead, where needed, women took charge of the children, the couples parted, and went back to the homes of their parents.

The search day found everything normal on the surface—and a terrific tension beneath the surface. A tension far greater than there ever had been before. Polshin guards appeared everywhere, Polshins from other cities. At that Bruce and Don felt their hearts drop. Polshin Guards from other cities, Polshins from Bosn, from Felfya, from Shkaga! There were men and women, who came from those cities, here taking the places of dead. The chance was slight—but it existed.

Restlessly Bruce paced the stone-walled, bare apartment of his father. A tiny signal hidden in a button of his blue and gold Master Mek suit glowed dully twice. The Polshin squad was coming down this corridor now. The men in Mahtan were warning him. There would be no telectroscopes to find. They were all back in Mahtan now. But nearly every member wore one of the tiny detector buttons that would warn him when the Polshins approached.

There was a rapid winking of his button, then it went out all together. The voices of Polshins, sharp and domineering, came up the stair-tube from below as it winked out.

"Apartments A, B, and C, Landun. D, E, and F, Morly, and—"

Bruce seated himself stolidly in his chair. His father came in from the other room, and seated himself. He had a tattered, broken book, and slowly, his finger on the page, he began to read it.

He raised his keen eyes slowly to his son. "Bruce," he said, "we are frightened. Badly so. But we must do something, and we are stupid. So I read. And you sit there very stupidly. Your face is tense and white. There is anger and intelligence in your eyes. There is pride and self-respect in your shoulders, and the set of your head. Take them out, Bruce."

Softly Bruce laughed. A Polshin threw open the door almost simultaneously. Bruce looked up at him sullenly, his rounded shoulders slightly drawn away.

UP, Plehbs," snapped the Polshin. Slowly the two men rose, and faced the young Polshin. He came over to them, while a companion stood in the doorway. The second man held a sheaf of records.

"Name, Plehb?" the first demanded sharply, looking at Bruce.

"Bruce Lawry, Polshin Sir."

"Age, and status."

"Thirty-one, and I am a Class A Master Mek, Polshin Sir."

"Check," said the man in the doorway.

"You?" snapped the inquisitor turning to old Jon.

Briefly, obediently, Jon Lawry answered his questions.

"Check," said the man in the door. They entered then, and with quick, but

thorough methods, searched the entire bare stone room. There was little chance of concealment here, it seemed. In two minutes they were satisfied, and moved on.

A minute later Bruce's mother came in quietly and sat down. "They were very hurried, and quite bearable," she said quietly. Bruce's button winked twice. The Polshins had left the building.

"Voice—softly," said he quietly into the air.

"Ready, Lawry," answered a soft voice from the air.

"How has the search gone so far?"

"They have found nothing whatsoever. One of the Bosn men was examined by a Bosn Polshin—but the Polshin examining him did not know it. He was not expected a Bosn Plehb here.

"Observer fifty-three reports that Don Wade is being examined. A Shkaga Polshin. Another pair has finished and is coming—God—" suddenly the voice was tense with horror; "they're fighting! Don attacked the new Polshin instantly. Don Wade—is dead. Shock-rod. He attacked the Polshin with a chair. His brains are spattered all over the room. I can't understand—I can't understand—"

"Pick up that scene and project it here, instantly," snapped Bruce, something tight in his throat.

"Right, Lawry. A moment."

Abruptly, in mid-air, the scene appeared, then sound. A dozen Polshin guards had come at the call. On the floor lay a sprawled, bleeding figure, the scarlet cloak spotted horribly with a greyish-red substance. Beside him lay another inert figure, its fingers clasped tightly about the metal bars of a chair, a chair covered with the *stain* that spotted the dead Polshin's cloak.

There was not enough of the Polshin's face left to recognize. An angry, snarl-

ing grumble of conversation drowned out individual voices. "Which," demanded Bruce, "was the second of the pair that came in together?"

An enormous finger touched one of the miniature figures in the scene, and the figure swayed. "This," replied the voice of the operator.

"It is the second of the Polshin Guards in the Mating Office that day," said Bruce softly. "It is the man who saved Don's life that day. The dead Polshin is the one Don struck, I am sure."

"I've seen him—I've seen him before," said a voice from the tiny scene. The Polshin the finger had pointed out was speaking. The others stared at him. "I know! I saw him in the Mating Office two years and more ago. His woman was taken just as he was about to mate with her—Omallin. We were ordered to take her out, this Plehb struck Tom-sun then. He must have remembered—killed him today."

"HE couldn't stand the sight of that man, I guess," said Bruce softly. "He should not have done that—not only for himself, but for Freedom. We needed him too badly."

But Bruce wondered as he said it, if, perhaps, it were not best thus. Don would not have been contented merely with freedom for the Plehbs. And Don had won, for what he had started, lived, though he died. The Freedom Movement would go on. He had endangered it by that act, though, for the Polshins were angry now, furious. They would be harsh—but put it down largely to a two-year-old grievance.

In the end it might even aid in discouraging further searches.

"How are they treating our women?" Bruce asked at last.

"Fairly well. The prettiest have used all their art to make themselves unat-

tractive. And the Polshins are very intent. They feel the seriousness of this. They will come back though—at least some have promised themselves they would.”

“That is what I fear most,” admitted Bruce. “Get in touch now with Manning. He will be president now that Wade is dead. Tell him what has happened, do as he says, of course. And let me know from time to time how things are going. “It’s hard to realize—Wade dead.”

CHAPTER X

“**M**ARY has been reading some of the old records to me,” said Omallin pompously to his council, “and in the Old Days, my forefathers got some aid from certain of the Plehbs. He picked certain of those who seemed to have sense, or the dim beginnings of it, and found that by offering them certain advantages, they would furnish him with information regarding the activities of the other Plehbs.

“I wonder if we might not try the same system.”

The members of the council looked disgusted. Have dealings with a Plehb—offer something in return for a favor from a Plehb!

Bruce, watching the images in the telectroscope, was not so disgusted with this plan. There were still certain Plehbs who had not been invited to join the Freedom party, either because of their stupidity, as in the case of most of those who had risen no higher than the Grey class, or because of their characters. And those refused because of their characters, were just the ones the Polshins would want. There were some seven thousand of them—and the permanent crew could not possibly keep so many under constant supervision by telectroscope. It was a physical impossibility—

“The idea,” said Vanilt, “is prepos-

terous. Associating with and asking favors of Plehbs.”

“Our forefathers did it,” Omallin replied. “Besides, it might furnish us much amusement, listening to the tales of the Plehbs.”

“What reward can we offer them?” asked Morn unpleasantly.

Omallin laughed. “Our fathers solved that! Plehb girls. They chose the ones who could not win wives—and it worked very well.”

“Hmmm—but there seems to be a great dearth of Plehb women as it is. I have not seen a really beautiful one in two years.”

But before the council broke up, the thing had been decided on. The Polshin Guard members were to select the ones needed. They were to do it secretly. And the system to be used was one so cleverly worked out, that not even with the aid of the telectroscope would all the members of the Polshin spy-ring be detected at once. Many of course, would be actual members of the Freedom movement, for they now numbered two hundred and eighty thousand in a city of three hundred and fifty thousand. Inevitably, the Polshin Guards would choose many of these.

That night in the Meeting Hall, Bruce and other officials of the Movement spoke, spoke to an audience of, apparently, less than four hundred, actually to all the Freedom members of the city, watching with their tiny telectroscope machines. Carefully Bruce outlined the dangers, and carefully those who followed him, outlined the defense. Those chosen were invariably to accept. They were to do their best to learn what non-members of the Freedom party belonged to the ring.

In a week, the ring began to grow. That week saw the inclusion of Sattl and Dllas into the ring of Union cities. The system of choosing the spies, that the

Polshins had gotten from the old records, was simple—simply choose enormous numbers of spies, choose so many at once that no counter-spy system could follow all. Many, they realized, would be members of any movement there might be toward revolt, but no two chosen saw each other. They were not visited in offices, but Polshin guards spoke a word or two on the Corridor. And Guards were everywhere since the search and the murder of a Polshin. Over two thousand guards stood about everywhere. During the rest-hours, every single member was watched, but the night hours were rest hours for the Polshins too, and no business was transacted. No clues were dropped, no hints released. The spy ring was completed—and made tight.

AND—the first arrest was made within two weeks. A genuine Freedom Delegate from the fifty-second section. How the spy had learned, how he had communicated his information, even who he was remained an utter mystery. But Mark Rainy was the first victim, and he set the example for others of those who were to be captured. He was arrested at his work, while repairing a slight break in a food-machine. Four Polshin Guards took him, whisked him swiftly to an office somewhere in the Polshin section. It was ten minutes before this could be picked up, and followed, for a messenger had to make his way to the nearest communication station in the outlying Deserted Corridors to signal the information.

They located him finally by following Omallin. Omallin came to that first inquisition, to learn what truth there was in the story a hundred spies had brought in, that there *was* some movement toward revolt. Rainy was bound now, and as Omallin entered, the questioning began. Not a word would Rainy speak.

With a delicate precision, the Polshins applied their shock-rods. Terrible, nerve-wrenching shocks were sent through his body. Rainy said nothing, save to deny that such a movement existed. He was humbly pleading at first. Then stubbornly angry, persisting in his declaration that there was no such movement. Admitted that he went out secretly many nights—could he not visit a friend secretly. Who was the friend? A Plehb did not explain such things.

Then he somehow loosened one of the inexpertly tied bonds. With a grim determination, a stolid decision, he attacked Omallin and before a dozen shock-rods coagulated his nerves into death, he had battered Omallin's fat-swathed hook nose into a bleeding, pulpy spread.

Bruce smiled grimly as the last act of the strange drama on the Freedom Hall stage came to its end. "I am glad to think the Polshins have no Plastic Surgeons such as ours. Omallin will resent that more than any other thing."

A new tenseness and hatred developed among the Plehbs, more virulent even than their hate of the Polshins, and one even harder to express. Somewhere in this city were Plehbs, their own people, who had turned against them.

And with the building up of the spy ring, came a still greater threat. Omallin had to build up another force. He had to gather means of keeping his promise to Plehb spies. A horrible terror gripped the heart of every girl, every mother and every father, every brother or sweetheart.

Swiftly the tenseness was building up. Bruce knew that every day brought the inevitable climax nearer. As yet no more girls had been taken, for Omallin was still testing his spies, still uncertain. He believed largely what he wanted to believe, and he did not want to believe and

could not believe that actual danger of revolution threatened him.

A second arrest was made, Jim Brady, a member of the Freedom movement. And Jim Brady killed the Polshin who arrested him with his great, work-hardened hands. His powerful fingers fastened on his throat with a grip that drove them through the flesh, and the shock-rod currents only served to bring a *rigor mortis* that locked the dead fingers more tightly yet. The two dead bodies were carried away together, that a surgeon might separate the Plehb and his Polshin victim.

THAT night there was a tenseness among the Polshins as great as among the Plehbs. A Polshin had died, died horribly. There were no skilled morticians to hide the horrible, torn throat, and the Polshins who had neither suffered injury, nor been called on for the least display of courage in generations, wilted spiritually before that wound. The council was more serious than ever it had been before. And there was little amusement in the gardens of the Polshins that night. Polshins looked on their Plehb slave-girls and saw burning in their eyes a deep, smouldering hate. There was a new suppleness in them, the soft suppleness of a snake as it creeps upon its victim, for every one of those Plehb girls knew now of the Freedom movement, and every one knew that a Plehb had torn the throat out of a Polshin.

By dawn the Polshins were inspecting old atomic cruisers, looking again at the old ion-guns that had swept death through a thousand corridors in past years. And by dawn they knew that a half-dozen Plehb girls had died, died attacking the Polshins that came to them. One had swung a chair, the heaviest her muscles could wield, and sent the man to the hospital with a fractured skull.

He was dead by noon. Two had tried to emulate Jim Brady, and left deep scars on the throats of the men they attacked. Only their lack of strength had made the wound painful instead of fatal. And one, swimming in a pool, had wrapped her arms around a Polshin, and drowned with him. Two more had been stopped in time. There was no doubt about the Freedom movement now. Every Plehb knew it, and every Polshin. All N'yak stirred restlessly with it, and Polshins in every other city of the country were suddenly aware of the danger. They too were thinking of making searches.

Omallin ordered another. Bosn and Felfya sent a few Polshin guards. Every Polshin in N'yak would engage in this search. And the spies were contacted throughout the city. In haste, it was done—hurriedly. By noon the search would begin. And the first search party found twenty-three corpses in the first sector they investigated. Spies—spies burned with curious round wounds that had let out life instantly.

The Freedom scientists had found their hand-weapons. Twin pistols, one shooting a stream of electrons, the other a stream of protons. Effective up to fifteen feet, no Polshin would get near enough to use his shock-rod when a man carried these. They had heavier weapons, too, weapons being groomed all that night, great tubes five feet long, mounted on little trucks. In the base was a material-energy engine, an engine that released the colossal energy of matter as an inconceivable, positive electric field. Like the disintegrator, it would tear any atom to sub-atomic fragments—and hurl the protons out with a velocity to two thousand million volts! No insulation would have resisted such a potential, but insulation capable of handling a hundred thousand surrounded the tube, and a smaller projector within the projector shot out a

preliminary stream of protons that broke down the air ahead to form a leading path that the titanic discharge followed. First the bolt of protons, then the electrons were released and shot out to follow. What this weapon directed its forces against dissolved into hydrogen gas. No complex, balanced atomic structure could resist that bombardment.

Bosn was starting its search, so they planned at least, in two days. Meanwhile their Guards were loaned to N'yak. N'yak would reciprocate, of course, when their search came about.

AT noon the groups started out. They had spy's directions now. And every squad carried cosmetic-removing materials. The Mahtan section, in charge of Bosn and Shkaga men and women, watched every step of the progress, while Bruce, in his home, watched what he wanted. The big telectroscope projector would allow two-way communication when needed, and this time every Freedom member had kept, in secret compartments, both their telectroscope apparatus, and the hand-weapons the Freedom scientists had distributed. The compartments hollowed out of the solid rock with disintegrators, in most cases, and hidden behind steel doors, faced with granite.

"They have found the corpses," said a soft voice in Bruce's ear. "They are reporting to Omallin and the Council. Omallin is greatly perturbed." The voice allowed itself a chuckle. "He has ordered that spies be questioned carefully when visited, for any more recent information."

Bruce watched the tiny stage of his own telectroscope. A party of Polshins was investigating Hal Powr, Vice-president of the Union. He smiled as the Polshin guards left Powr and his "mother," a high-ranking Bosn woman who had taken the place of the gentle

old lady who had died seven months ago in Mahtan Hospital.

Steadily, and with grim determination the search went on. It was a colossal job to search the one hundred and eight thousand apartments of N'yak. And three guards, the shock-rods at the ready, made each search. Carefully they looked this time. And Bruce trembled at the possibilities, the almost positive certainties that must come of this search. He had hoped for more time. They needed it so vitally. Yet all over the city now, Polshin Guards were looking, and wondering. Girls, beautiful, fair-complexioned, slim, graceful girls were blossoming out suddenly now, whereas in the search made a few short weeks ago, there had been none. Cosmetic trickery would have been a signed admission of membership in the Union, padding that had distorted lithe figures before would have been as bad, for cosmetic removers were being plied with a will, dozens of girls had been forced to prove their clothes had no padding. And Polshins were making mental notes.

"This search makes things impossible, Bruce," said the Voice worriedly. "The Polshins will be back, individually, to demand those girls now. For two years they have found almost none, and the spies—they must be satisfied."

"You may as well send out the word to prepare for the final rebellion," assented Bruce sadly. "We will be hard-pressed. We have four Freedom ships ready here, four in Bosn, three in Felfya, three in Shkaga, and two in each of several other cities. But so many of the new member cities have none, and no proton guns. This night we must distribute the proton-tubes. You will get an immediate vote on this from the other members of the—my button flashes." Abruptly Bruce swung shut the granite-sheathed door of his telectroscope machine's hide-away. He straightened, and

turned to the doorway. Polshin voices were snapping tensely below. Bruce waited patiently, humbly and correctly he answered their questions as they were asked, as did his father.

In five minutes they left his apartment again.

And almost instantly, before the door had more than closed, the Voice was back, softly, but infinitely tense. "Bruce—emergency. A spy has reported, and the report was carried directly by telephone, to Omallin. A spy living next to Lora has reported her definitely as a member of the Union, and as one high in the organization. A Polshin party arrested her while you were being examined, and took her away, immediately. She is bound and bound expertly. They are entering Omallin's inquisition room now."

"GOD!" said Bruce. Instantly he snapped open the little door, and brought out the telectroscope. In a moment his flying fingers had trained it on Omallin's office. Lora, her hands bound tightly behind her, was being held by two Polshins. She was smiling slightly.

"I've heard you were fat," she said calmly to Omallin, "But I didn't know a human could be so hideous. And that nose!"

Omallin's red face went purple. Then it went white. "Plehb, that being your opinion, I shall make you my slave for a time, after we have learned what we will from you, and then you shall amuse our spies. And then you shall finish paying for that very slowly."

"All three wrong, Omallin. Long before that, someone will finish what Mark Rainy started."

"Hold her," snapped the Polshin, "and no matter what she tries, do not kill her. Tie her to the frame over there." Omallin took off his cloak, and picked up a

pliable wire cable, its ends frayed as the two Guards swiftly and efficiently did as he had ordered.

"I will start with ten blows," said Omallin, "and after that, anything you may want to say, I will be glad to listen to." He drew back his arm, and slashed viciously at her. A livid streak came, running across her back, and half way around her body. She jerked convulsively.

"You—know the Freedom movement has started, Omallin," she said in a deadly calm voice. "That is all that matters. That, and the fact that you will die inevitably: You, personally, Omallin. You yourself will be killed. Not someone else. You will probably kill me here to-day—but someone else will kill you, Omallin. And—do you know? Probably a hundred thousand eyes are watching every move you make. And a hundred thousand ears hearing every word you say. And what I say."

"Quiet, lying Plehb." The girl's body jerked to another blow.

"Lying—am I? Then Tom, show them—it does not matter now, for there is nothing they can do! Show them!"

Bruce did not see this. In fact, he had stopped watching almost immediately after the first blow. But Tom Philips did, and Tom Philips at the telectroscope projector spoke into Omallin's ears.

"She might have added, Omallin, that fifty thousand Plehbs are promising themselves individually to kill you."

Omallin's face went whiter than ever before. Furiously he spun around, seeking the source of that voice. But only the white startled faces of the other Polshins greeted him. Suddenly he regained his courage. The ghost voice—but they could do nothing! They had done nothing, that was the proof of it!

"Then if all those miserable Plehbs are watching—let them see! And let

them remember that I promise this to every Plehb who dares to think of harming a Polshin." Viciously he spun back to Lora. His arm swung up and down. Again. It rose again—and stopped abruptly in mid swing as a giant ten feet tall loomed suddenly, solidly before him. A giant in loose, white clothes trimmed with gold and bright blue.

"STOP," roared the giant, his eyes lambent with anger and hate. "Stop, and out of this room!"

Precipitately the Polshins fled the room, fled it in terror. Only the bound girl remained in the rock-walled room. "Thanks—Tom," she replied. Her head fell forward loosely as the white-clad giant vanished. He had other work. The Polshins would be back in minutes.

Bruce had left his electroscope when the first blow fell. He had slammed the little door shut, and burst out of the apartment on swift feet. In his two hands were the twin bearers of death, which the Freedom scientists had designed, and in his heart was a sudden understanding for Don Wade and his mad murder of the Polshin Guard. Something hot and driving had clutched him, something that seemed to distort everything he saw, that made the Polshin Guard suddenly before him a monster, leering with devil-eyes at him, rather than a semi-stupified young man. The Polshin fell silently as twin, ravening beams tore into his chest.

That something had made him see more clearly though. He saw Lora's keen, laughing eyes different, and more clearly. He saw suddenly that she was LORA, not his keenest, quickest, wisest helper.

He saw a squad of Polshin Guards fall suddenly as the two beams bit into them, and heard the shrilling of their warning whistles stilled as suddenly as they fell. He caught glimpses of the

corridors as he raced through them. But most of the time the windows and lighted passages were clouded over by a great fat Polshin in a scarlet suit, his angry white face, and a white back with an angry scarlet stripe.

He realized suddenly that a voice was calling him, the voice. "Bruce—Bruce, for God's sake listen!" He halted suddenly, sliding to an abrupt stop. "Bruce, they stopped. I used the projector at Lora's authority to frighten the coward's away. What shall I do now?"

Suddenly Bruce was cold and sane. Only his viewpoint was changed, all life seemed to have different ends and aims. "Right, Tom. Thanks. Get observers to watch around me for Polshins. I can handle them, but I want to know."

"We've done that. Followed you all the way."

"Good. Send warnings to the other cities with the smaller projectors, at once. This search will end here in short order now, and then use the projectors to gather the people here. Now, send the small ship we have armed with the proton-tubes to me here, at once. Brady's the very best pilot. Send Grant along, we'll need him to treat Lora."

"BRUCE—they came back for Lora just now. The big projector's on them. I'm going over." Another voice came on suddenly. "I'm using the secondary projector. Tom Philips is trying to drive off the Polshins. They've touched his image with shock-rods, and the opposing field shorted the rod so it fused in the Guard's hand. There's a dozen guards, and they won't leave. They've cut Lora down, and are taking her. She's unconscious now, it seems."

"They've got an atomic pleasure-ship in the Corridor, and they're in it now. Taking Lora—Down Corridor F and now—up tube 36 In the open now, above the surface. Taking her—they're

taking her to the N'yak Fortress! All the Polshin families are moving in there hurriedly! They're really frightened—Omallin's gone there already, with his crew—Taking Lora into one of the cells—Put her on a couch—Surgeon has been called—Omallin must have different plans now.

"The surgeon's working. Lora's come to her senses. Philips is talking to her now. The surgeon's backed out, scared. The Polshin guards have come back, and they've tied Lora down. Lora says she's all right."

A ship, sixty feet long and ten in diameter appeared just above Bruce. There was a strange quiet in this part of the city, near the Deserted Passages now. The ship dropped lightly, and Bruce jumped in at once. On the stage of the electroscope of the ship was the scene in the cell in the N'yak fortress. Four Polshin guards were binding down Lora with a careful efficiency, paying no attention to the ten foot figure of Tom Philips standing beside her. Lora was talking.

"—Bruce to start things, I'm afraid, but tell him that if he is going to go anywhere, be sure he can land before he jumps off."

Tom Philips spoke. "Bruce has started things, Lora. She's just been picked up by one of our ships in Corridor F-R. He's watching now on the ship electroscope."

The Polshin guards had finished, and were standing about helplessly now, the scene wavering slightly due to the motion of the ship as it returned to the berth in the Deserted Corridors. Lora smiled faintly.

"That's better—then I can talk to you, Bruce. Remember that for months you have been working out a plan, and that plan is the best that human ingenuity has been able to evolve. Go to it."

A POLSHIN messenger appeared suddenly, and spoke sharply to the leader of the guards in the room. A moment later a second doctor appeared, evidently the first would not come back. This man at once shooed the Polshin Guards out of the room, clapped his palm under Lora's chin, and then put a piece of adhesive across her mouth. Swiftly the doctor set to work, inspecting her wounds and putting *theta*-paste over them. In thirty seconds the *theta*-paste had hardened, and contracted, pulling the edges of the cuts together, meanwhile disinfecting them. He cut the wire bonds the Polshin guard had placed on her, and looked up at the towering figure of Tom Philips.

"Really, you disconcert a worker. Can you see anywhere with that device?"

"From Mercury to Athena. Or don't you know them?"

"I know them," the surgeon nodded. "The Planets. You can actually see so far?"

"Further. We have never really tested it out."

"Through rock and metal. Hmmm—wonderful diagnostic instrument, isn't it. You have surgeons, I suppose."

"Better than any of the Polshins know. We have all the books of the Old Days at our disposal—and our surgeons study at the Interplanetary Center on Mars."

The Polshin smiled deprecatingly. "Really, I'm ashamed of my profession here. What must one do to join your new school of medicine?"

"Be a man, a Plehb," snapped Tom Philips.

Bruce, in the ship, called out now. "No, Philips. Listen to me. The first is right. The second is not indispensable. Tell him that."

"Bruce, our leader," said Philips more calmly, "says that only the first is indispensable."

"Then, perhaps I might learn to qualify. I have often wondered whether some of the people I have met were truly human. Omallin for instance. I'd classify him as belonging to the pig family." The man had turned back to his work now, and had injected something into Lora's arm. "Omallin had some pleasant plans for this young woman. He will be interested when I make my report. That was a fifty milligram injection of *delta-morphium*. Do your men know it?"

"It will put her to sleep, and keep her unconscious for two full days," said Dr. Grant in Bruce's ear. "Nothing will waken her save certain of the new drugs developed in Mars Central. They do not have any."

Philips relayed Grant's report. "Ah, you are indeed ahead of us. Unfortunately—or should I say fortunately—we know of nothing which will disturb the slumbers of the patient. She ought to drop off in five minutes—"

A SQUADRON of Polshin Guards came down the corridor, with Omallin fearfully following behind. The doctor looked out at them annoyed. "I'm working with my patient," he said, "and it isn't necessary for you to disturb her now, is it?"

"Yes," Omallin growled. "It is. I wish you'd get that thing"—pointing to the looming Philips—"out of the way."

"He's quite harmless, so far as I can see. But can't you wait a few minutes? I have given the girl some injections."

"No. We have to find out where that thing is operating from. A Plehb in the city ran wild and killed no less than eleven Polshins. He simply disappeared—at least we can find no one who admits seeing him go anywhere."

Tom Philips suddenly vanished from the room, and Bruce Lawry's image ap-

peared. "He's here, Polshin Coward," said Bruce gently. "Quite safe, thank you. Much safer than you are."

Omallin spun sharply to look at the new image. Angriily he roared at it. "Before I'm through with you and your ilk, you'll learn better than to insult a Polshin!"

"Before I'm through with you and your ilk," replied Bruce, "you'll learn better than to beat women." Bruce noticed the doctor looking at his watch. A slight smile crossed his face. "Three" his lips formed.

Omallin's face turned red with anger. He raved and he shouted at the taunting image. He tore a shock-rod from a Guard's hand, only to remember in time that it would fuse and hurt him.

Finally he quieted. "Stay there then, and watch. Watch what happens to this animal that insulted me. Barnes, give me that grid!"

A Polshin advanced with a broad flat disc of metal, perhaps a half-inch thick. A wire with a small plug trailed from it. Omallin grasped it, and shoved the plug into an accumulator pack he carried. He carried the heating grid over toward Lora. The doctor stepped in front of him.

"Please—you know the girl is sick. I think it would wait."

"Get out of the way, Manning. I don't care what you think. We need that information, and I want to teach that—"

"But—the girl's asleep," said Manning. "She will wake quick enough."

"Oh, no, really, I'm afraid not. It's *delta-morphium*.. Nothing can wake her within two days, you know. I thought it would hasten her recovery—"

Slowly Omallin's face went white with anger. His body quivered and wavelets dashed up his fat neck to break on the out-jutting reef of his chin. But there was nothing that would disturb Lora.

Valley of the Rukh'

By HARL VINCENT

Readers of the Arabian Nights will remember the giant bird called usually the Roc. The preferred spelling which our author uses is Rukh. The best we can say about this story, and that is something very good, is that it is in the true Harl Vincent style. Mr. Vincent has long been a favorite with our readers, and we are sure they will enjoy this picture of the valley, perhaps Sinbad himself tells about.

CHAPTER I

Lost Plane

NO route of the North American Air Express is better marked than the lane between El Paso and Los Angeles. Yet Stanley Kent, with more than ten thousand flying hours to his credit, and a veteran pilot of this very region, was lost.

A moment before, he had glimpsed ahead the silvery ribbon that was the Colorado River. The purples and yellows, reds and browns, of the Painted Desert had been there; the crystal clarity of the good Arizona air. Now all was changed; a rank, mist-shrouded forest appeared where no forest should be, and the sun was obscured by a thickening of the atmosphere which gave it a color distinctly green.

Kent blinked, then pushed his goggles back on his forehead for a better look. The incredible vision persisted.

He peered at his navigating instruments. Nothing wrong there. Unless his compass had gone haywire, there was no slightest excuse for having missed his course. He *couldn't* have missed it. But the fact remained that not a single familiar landmark was in view. For miles in all directions the terrain was

oddly unlike any he had ever seen. And Kent prided himself on knowing every square mile of territory north of the Rio Grande and south of the Yukon.

He nosed the plane up sharply.

Now, for the first time, he was conscious of the power which was to influence him throughout the hours to come. It seemed that a voice had called him, a voice inaudible but yet clearly discerned in his consciousness, urging him to something he did not understand.

Circling high above, was a great bird of unknown species, a bird with the angular membraneous wings of a bat. But of enormous size, larger than a transport plane . . . unless his eyes were playing tricks.

Kent advanced the throttle full on and climbed after the bird.

Swiftly though the express ship gained altitude, the impossible flying creature up there was swifter. It was quickly lost to view, and Kent leveled off, sending the plane into a long easy glide. Like a man in a dream, he groped to assemble his scattered wits.

And then a screaming something drove down out of the skies. A huge bulk that dived so speedily as to seem no more than a formless blur. No man-made ship of the air had ever attained such velocity in a power dive. It was



There came a fusillade of shots from Pedro's direction and Ruth turned about in time to see him knocked from his feet by the swooping charge of the second of the giant bats.

an intangible thing, already lost in the mists.

Kent observed with amazement that the green vapor had gathered into a perfectly outlined circle several miles in diameter, completely hiding what lay beneath. The altimeter showed six thousand feet; the sunlit verdancy down there was about half that distance below him.

Again came the unspoken voice, the thought message. Urging him, commanding him now to follow in the wake of whatever had screamed down out of the heavens. He started down in a tight spiral.

Leveling off again just above the green mists, he tried to figure out what had happened. But his brain refused to function intelligently. His ability to reason had forsaken him; he could think of nothing but the overpowering desire to go down through the emerald cloud bank. He knew in that moment that he would find no earthly landscape beneath, that the urge to pursue the diving thing did not originate within himself. But he could not resist the impulse.

His motor roared as he gave it full throttle. He circled once, then nosedived into the blankness of the fetid mists.

Three thousand feet. Two thousand. One. Eight hundred. Kent brought up the nose of the ship and banked steeply. Nothing was below excepting the billowing green. Had he been in his right mind he would have pulled up out of this; rather, he would never have gotten into it. But his thoughts were not his own; a soundless voice down there was calling to him, a wordless command drove all else from his consciousness. The plane lost altitude rapidly.

At two hundred feet the mist was thinning somewhat, but he was still un-

able to see the ground. He throttled the motor to idling speed.

And then a great dark mass loomed in the eery fog directly ahead. Instinctively, he wrenched at the controls. But it was too late; the sound of rending wing-fabric and crumpling struts was in his ears. He catapulted to the forward crash pad and knew no more.

WHEN Kent awoke to knowledge of his surroundings he lay for a time, staring stupidly. Above him was a dense profusion of towering vegetation, the foliage, like fronds of enormous ferns, borne aloft on giant semi-transparent stems. Blue-green in color and rankly odorous. A carpet of thick moss was beneath him, so thick that his body was half buried in the lushness of it.

He ached in every joint and muscle; his head thumped abominably. An exploratory finger located a sizable lump over one eye. Kent dragged himself to his feet, muttering disgustedly.

Then he saw the plane, dangling a full forty feet above him in the fronds of one of those preposterous giant ferns. The stem or trunk of the growth was bent almost double by the ship's weight. Its flexibility had broken the force of the crash; the softness of the moss beneath had saved Kent from serious injury or death.

He had not the remotest idea of his whereabouts. His head was clear enough now, but he recalled uneasily the haziness of mind which had come to him before the crash, the telepathic summons he had been helpless to ignore. Something was mighty queer about all this. Certainly this was no place he had ever seen or heard of; the very air he breathed was different, heavy and stifling, the green fog unnatural and menacing. Perspiration streamed from his pores. Though he sank to

his knees at each step in the purplish moss, it seemed that he was abnormally light on his feet. His breathing was labored and painful; a coppery taste was in his mouth. Could it be he had been gassed and was imagining these things in a state of delirium?

A raucous shriek smote his eardrums, setting his nerves on edge. Shrugging away his irritation with himself, he set out through the mossy undergrowth. Whatever his condition, wherever he might be, there must be a way out. He would find it somehow.

He came to an open space and stopped to stare in astonishment. A great white dome rose from the middle ground of the clearing, upon a smooth walled structure he at first took to be a temple. But, when he had walked entirely around it, he discovered that there was no entrance of any kind; its surface was unbroken by door or window.

By now he was realizing that the usual sounds of a woodland were missing. Instead of the familiar bird calls and the argumentative chattering of squirrels, there were queer, metallic raspings, hoarse grunts, and an occasional deep-throated bellow that seemed to come from a great distance. Kent could identify none of them.

Nor could he identify the strange creature that rose up suddenly from the reedy fringe at the edge of the clearing. It was a squatty animal which walked erect like a man but steadied itself by means of a dragging tail, a powerfully-muscled appendage, resembling that of a kangaroo. The body and head were hairless and pasty-white in hue, the forelegs or arms, which ever they might be, extremely short and terminating in slim, perpetually writhing tentacles. The face was ghastly, with enormous, unblinking eyes and a thin-lipped, scarlet mouth directly beneath

them. On it was no nose or any suggestion of breathing organs.

But Kent saw with a start that where the ears of the being should be were pendulous spongy masses which expanded and contracted rhythmically like the gills of a fish.

"Confound it!" he muttered. "I'm seeing things again."

Another of the creatures rose up and still another. The air was full of tremulous pipings. Kent looked around quickly and saw that many more of the little kangaroo-men were behind him.

He was surrounded.

ATTIRED in regulation flying togs as he was, Kent had nothing on his person that could be used as a weapon with the possible exception of a small end-wrench. And that was not over five inches in length, weighing only a few ounces. Besides this, he had his pipe, tobacco, and matches. Not a very encouraging inventory.

The kangaroo-men were closing in on him.

"So," he said grimly. "You're going to gang me. Well—"

At the sound of his voice the creatures halted their advance and set up a chorus of surprized twitterings. One of them, fully four feet tall and carrying himself with an air of dignity which marked him as a leader, stepped in from the circle of his fellows and addressed Kent in curious staccato syllables, uttered in a flute-like voice.

The flyer grinned; there was something mirth-provoking in the owlsh solemnity of these beast-folk. "If it's all the same to you," he chuckled, "I'll take root beer." Sobering then, he added, to himself: "Intelligent little devils, at that. Wish I knew their lingo."

Again the circle tightened around him. But there was no sign of hostility among

his captors, if captors they were. Kent conceived the idea of attempting to convey to them the fact that he was hungry—if he could make them understand, they might possibly take him to their dwelling place. A village. Caves. Anywhere at all if only it were nearer to the civilization he knew.

He opened his mouth wide, working his jaws voraciously. Rubbed his midsection with the palm of his hand; made the noises of a gourmand, and felt like a fool in the doing of these things.

But the leader of the kangaroo-men was quick to get his meaning. He called out to his followers shrilly, and they began to move off across the clearing in orderly fashion. Pointing then with one of his tentacled arms, he jabbered in friendly fashion to Kent, indicating by pantomime that he was to come along.

There was nothing to do but follow.

The utter incongruity of his surroundings impressed Kent with new force. He was sure now that this was no dream from which he would awaken; the forest of giant ferns, the green clouds above, the queer creatures plodding through the swampy footing, these were undoubtedly substantial and real. But reason told him that no such region existed in North America, or for that matter anywhere on the surface of the earth. What then? Had some vast subterranean disturbance cast off a section of earth's crust to expose a hitherto unsuspected realm of the interior? He gave it up.

Waddling ludicrously before and behind him, yet proceeding at a steady and rapid pace, the kangaroo-men were leading him up a gentle slope away from the forest. Here there were outcroppings of chalk in broad crumbling strata and patches of dry furze, giant puffballs with skins which appeared tough and leathery but burst open at the slight-

est touch to release inky cloudlets of choking dust.

Eventually they reached the top of the slope and Kent gazed for the first time out over what he was to know later as the valley of the Rukh. Closed in on all sides by low but steep hills, it was almost exactly circular like one of the moon's craters. The floor was level and bare of vegetation. Sandy. An errant breeze whipped up a wisp of sand and sent it whirling across the basin. It was brick-red in color. In the middle of the valley was a tall pinnacle, topped by a huge figure. Kent blinked when his eyes rested upon it, and again there came to him that inexplicable call to an unknown destination. A creeping sensation flashed over the skin of his body.

THE kangaroo-men had prostrated themselves at the edge of the cliff, facing the figure on the pinnacle. Evidently it was to them an object of worship. And an amazing piece of work, was this huge fetish, apparently carved from the solid rock by the cleverest of sculptors. The representation of a bird poised for flight, a figure fully one hundred feet high and with a wing spread to correspond. A bird with wickedly curved talons and a hooked beak, like the American eagle.

Lost in wonderment, Kent did not observe the flight of his queer companions until a rustling sound caused him to look around. Then he saw that he was alone and saw too what he thought was the reason for his desertion by the beast-folk.

Facing him, and not more than twenty paces distant, was an astonishing figure. A human being, a man of stalwart build with eyes that peered fixedly out of a countenance of great strength and determination. A big fellow of unknown race. He was naked save for

a furred pelt he wore like a kirtle, and his skin, like that of the kangaroo-men, was as white as a tree fungus.

A long blowgun was at his lips and he swung it around in Kent's direction. His cheeks distended like bladders.

The flyer ducked instinctively.

CHAPTER II

The Girl

PEDRO MARTINEZ was an excellent guide, if a petty scoundrel at heart. He was a handsome young devil, what with his olive skin, trim black mustache, and flashing smile. He had an insolent air about him, which somehow was attractive to women, old and young alike. That was what decided Ruth Owens in selecting him for the long anticipated excursion into the Painted Desert.

This was Ruth's first visit in the west. City-born and city-bred, she was the spoiled, only child of doting parents who had too much money for their own and her good. A year ago she had "gone literary," as her friends termed it, and the unexpected and entirely unmerited success of her first rather sophisticated novel had turned her head more than she would have admitted. She had been through the Yellowstone and Grand Canyon and was now invading the Painted Desert in search of "atmosphere."

Pedro flashed a knowing grin when she told him this last. And she, accustomed to flattery and obsequiousness, thought it a smile of adulation. She did not know that the young Mexican was a Princeton graduate, that he had read her book. Or partly read it; he had cast it aside as a silly waste of time, when he reached page ninety.

Neither had she the faintest notion of the attractive picture she made in her smartly tailored riding habit, astride

the hard-bitten pinto pony that Pedro called "Tex." Nor did she suspect how stirred was the hot Latin blood of her guide by this picture. A point in the impetuous girl's favor—she was *not* a victim of her own charms.

They had been riding since sun-up, these two, and few words had passed between them. Pedro was too wise in the ways of femininity to risk making any show of undue familiarity. That would come later when the girl was tired and thirsty; he would see to it that events shaped themselves to his advantage. The girl, awed by the spaces and the silence, genuinely thrilled by the beauty of variegated color in the rock formations about her, was breathlessly mute.

Then came the incomprehensible thing which changed all of it in the twinkling of an eye. One moment her horse's hoofs were pounding the hard-packed sand, the next moment sinking to the fetlocks in a boggy verdure which appeared suddenly before her. There had come a sharp tremor as of an earthquake, a darkening of the sun to a ghastly green hue, and a thickening of the atmosphere to sultry mugginess. What had been a great rugged mesa directly ahead resolved itself into a mist-shrouded spire which thrust a hundred feet up and was lost in the green clouds. Tex bolted.

Ruth Owens was at home in the saddle, but this western horse had reverted to his native wildness. He ploughed through the heavy footing, panic-stricken, stumbling. Then he found more solid ground and went galloping up an easy slope with head down and ears laid back. The girl sawed at the bridle with no effect.

Reaching the top of the slope, Tex reared up abruptly, coming back on his haunches and pawing the air with his forelegs. There was a momentary

glimpse of a broad valley far beneath, with the spire rising in its midst, then the cinch broke and Ruth was unsaddled. Flung headlong over the rim, she struck heavily and was rolling and sliding down the steep declivity to the depths below. Darkness closed in upon her.

CONSCIOUSNESS returned painfully. Bruised and sore, her face stiff with grime, she lay for long, dazed moments, marveling languidly that she was alive. Gazing straight upward into a clouded sky that was strangely green in color. The tantalizing odor of fresh coffee was in her nostrils and she sat erect quickly, remembering.

Pedro, bending over a portable stove a few feet away, looked up and made use of his smile. "You have awakened just in time, señorita," he declared cheerfully. "For the noonday meal, that is."

Ruth's knees all but gave way under her weight when she rose to her feet and she grimaced with pain.

"Fortunately," said Pedro, avoiding her eyes, "you are no more than shaken up. No bones broken, I assure you."

The girl flushed hotly, then laughed at her own prudishness; after all, anatomy was only anatomy, and searching for possible fractures no great indignity. Especially when one was unconscious. She accepted gratefully the steaming tin cup Pedro proffered.

Her eyes widened as she surveyed her surroundings. They were in the valley she had glimpsed just before her fall and she saw that it was almost exactly circular in shape and was rimmed by an unbroken ridge of low but precipitous hills. What was most amazing about it was the spire she had seen before; now, with the green mists no longer hiding its upper portion, it was revealed for what it was—an enormous carved image. An image of a bird, ut-

terly lifelike in its minutest detail, a giant hawk or eagle, with wings partly outspread and head upraised proudly. Automatically, she fumbled for her notebook.

Pedro laughed softly, handing her a paper plate heaped with beans and bacon. "Sit down," he invited.

Ruth Owens sat, gulping down her coffee and scorching her throat. "I never expected to find anything like this in the Painted Desert," she exclaimed. "Why don't the books . . ."

"It isn't in the books," Pedro said gravely.

The girl missed his meaning. She gazed dreamily at the huge bird image and let her eyes rove over the valley as she ate. Her forehead puckered as she noted anew the green of the low clouds. But the spire and its colossal figure fascinated her; always her gaze would return to it though she endeavored to look away. The thing had a sort of hypnotic influence.

"It might be Es-Sinbad's roc," she mused. "And this valley—I have it—I'll call it the valley of the roc. Capitalized, of course, and a darned good title."

Pedro drawled: "Why not rukh? The spelling is preferred."

Ruth observed her companion with new interest; he not only knew the old Arabian Nights legends but had studied in other . . . her thoughts wandered. Something was wrong, some compelling influence—mental—caused her to turn her head. She was staring at the huge bird once more. Had the thing moved?

Impatient with herself, she shook off the feeling and turned again to face the guide. "Where are we?" she demanded.

"Quien sabe?" Pedro shrugged with elaborate unconcern but the gesture was unconvincing. Superstitious fear was in his black eyes.

"You mean we are lost?"

The guide hesitated. Then: "There is no such place," he avowed. "Our minds are twisted, that is all. Or, we are—dead."

"Dead!" Ruth laughed hysterically. The uncanny power of the ancient stone bird was once more drawing her attention. The eeriness of the place was impressed upon her afresh. The brick-red of the sand underneath, the deepening green of the clouds. The unnatural quiet.

Abruptly that silence was shattered by a rasping yelp that rolled across the valley and was lost in the hills. Ruth stifled a scream.

PEDRO was at her side in an instant, on his knees. "Do not be afraid, señorita," he begged in a swift rush of words. "I shall be at your side. We go into unknown danger together. Only we two. Can we not . . . ?"

He tried to take her in his arms, and there was that in his eyes which set the blood pounding fiercely in Ruth's temples. She gave way to blazing fury and sprang to her feet. Her riding crop, which she had been warned against using on a desert pony, cut him sharply across the cheek, leaving a broad welt.

She ran then to where the horses were tethered. Hardly knowing what she was doing, she poured water from one of the canteens, wetting her scarf and washing her face savagely. She was a sight, she knew. Her make-up box was in one of the saddlebags; powder, rouge, lipstick. Swiftly she went to work with these. Oddly enough, examining the result in her tiny mirror, she saw a tear stealing from under one lid. She could not analyze her emotions.

When she returned to the fire she found Pedro seated just where she had left him. He did not look up.

"I—I'm sorry," she stammered.

"I am *not* sorry," the guide returned softly.

But all thought of the occurrence was driven instantly from their minds by an angry screech that sounded almost in their ears. There was the sound of powerful wings beating swiftly and the swooping rush of some great shadowy thing from above. Acting with the speed of a striking serpent, Pedro hurled himself on the girl and bore her with him to the ground.

The talons of a huge flying thing ripped the guide's shirt as it swept past. Then it was soaring above them, circling for a fresh attack, an ugly, bat-winged creature with body as large as a man's and with a wing spread of twenty feet or more.

Pedro's pistol was out of its holster and he emptied it into the ghastly creature's body. The bird, or pterodactyl, or whatever it was, lurched in its flight and zig-zagged to the ground at some distance from them. But others of its kind were dropping from the green clouds, three more in all. Pedro reloaded swiftly.

"Get the rifle," he panted. Ruth hurried to obey.

She struggled to extract the carbine from its saddle sheath where it stuck stubbornly. Pedro's horse was tugging frantically at his tie-rope, whinnying affrightedly. Tex already had broken loose and was streaking across the basin. The rifle came free at last.

There came a fusillade of shots from Pedro's direction and Ruth turned about in time to see him knocked from his feet by the swooping charge of the second of the giant bats. He rolled over and over in the red sand, and the great flying creature was following him, ready to hook those wicked talons into his body. The girl brought up the carbine to her shoulder and fired twice.

She had never pulled the trigger of

a 30-30 and its recoil almost bowled her over. For that matter, she had never fired any kind of a weapon. So her shots went wild. The attacking bird already had Pedro's body in its clutches and was beating its wings vigorously to bear him aloft. Ruth had forgotten the remaining two in her frantic concern. She clubbed the carbine and ran in to battle with Pedro's assailant.

And then a strange thing happened. A whistling something struck down from above and thudded into the creature, which let out a raucous shriek and collapsed in mid-air. Pedro, who had been lifted several feet, dropped to the ground and scrambled out from underneath the flapping, dying monster.

"LOOK out!" he yelled to the girl. She swung out with the carbine at another of the creatures which drove down at her, and she squealed with unholy glee when she felt the heavy stock of the weapon crunch into the flesh and bone of its body. But in the next instant she was somersaulted ignominiously by the force of its charge.

Again came a whirring missile from above, and still again. The remaining two bird-things were accounted for, flopping out their lives on the red sand like beheaded chickens.

Ruth scrambled to her feet and looked up the slope of the near-by hill. There at the top she saw a giant white-skinned savage outlined against the green sky. In his hands was a long, slim tube, a weapon of some sort undoubtedly. It was he who had saved them.

CHAPTER III

Quor

VENUS is a watery and vapor-bound planet. More than ninety-five per cent of her surface is ocean, the land being divided into some

three thousand islands, the largest of which is smaller than Australia. The sun never shines on Venus, for the green clouds are ever present. And her inhabitants, similar in mold to earthmen but generally much taller, are extremely white-skinned, due to the lack of ultra-violet radiation. Their color would seem a sickly pallor to earthfolk, but actually the Venerians are a healthy and vigorous people, long-lived and intelligent. They have no knowledge of many terrestrial sciences, but in the science of mind are far in advance of our greatest thinkers.

Not all of the islands are inhabited—by humans, that is to say—and one island in particular has been shunned by the Venerians for ages. An ancient superstition clings to this island, which is known as Lixis, and all the power of clear thinking expended by the intellectuals has failed to eradicate the erroneous beliefs of men of the sea regarding it. Any ship's master, who might be so foolish as to order his crew ashore on Lixis, would have a mutiny on his hands.

But a certain group of thinkers had determined to conduct an experiment. With unlimited means at their disposal, they purchased a fleet vessel, engaged a navigator who was willing to make the voyage, and recruited a crew from bold spirits among the student body of the University of Jeleri. All of these were sworn to secrecy, but only a few of the number had any real knowledge of the true nature of the research to be conducted.

Quor, scion of an influential family in the capital city Jeleri, boldest and of greatest physical prowess in his class, was one of the first of the crew to volunteer. When eventually the vessel dropped anchor off the Lixian coast, all hands were called on deck and were informed that the experiment involved

the landing of only one man, who was to remain on the island alone for a space of two days. Warning was given that unknown dangers might be faced. Quor begged for the assignment and was accepted.

They stripped him to the waist, supplied him with food and fresh water, armed him with a blowgun intended for defensive purposes only, and sent him ashore in a small boat.

Quor waved a farewell to the ship when he landed, then plunged into the dense island foliage. He had never imagined such a wild and beautiful spot; the few islands he had previously visited were densely populated and monotonously alike—crowded. Here he experienced a new sense of freedom and an exhilaration which had never come to him in the cities. More than ever it seemed he was in the immediate presence of the Supreme Mind which is the Father of all lesser minds and of all things in the universe.

He had not progressed far inland when the ground seemed to leap beneath his feet; a sensation as of a mad dash through the infinite swept over him. Then came a period of silence. Quor had no thought of fear, but he retraced his steps in order to see whether anything on the vessel might have accounted for the phenomenon. To his amazement, the sea was no longer there; instead there was an utterly alien land stretching from what should have been the shore of Lixis, a land of arid sands and tall mountains that were built in layers of stone of every conceivable color. He drank in the beauty of it with keen appreciation, realizing anew how illusory are the evidences of the corporeal senses.

Without doubt, this was a demonstration of the experiment of which he was a part, a new method of thought projection perhaps, developed by the scientists

but as yet unannounced. However, Quor's two days had hardly begun; he turned eagerly into the jungle.

MOSTLY there was silence here in the thicket through which he made his way, but occasionally strange noises came to Quor's ears. He did not doubt that Lixis was the home of queer creatures like those seen in the city museums. Only here they would be alive, not merely inanimate things of plaster and paint. His heart beat a little faster with the thought of meeting them face to face; it would be interesting to watch for the effects of his mental forces on their lesser minds.

Once when he reached an open space a harsh squeal and a swishing sound caused him to look upward to the green clouds. He thought he saw a huge bird with angular wings flapping lazily; then the vision was lost to him.

Very soon afterward he was startled by a keen sense of alien thought-waves beating at his consciousness. Powerful radiations, they were, almost as powerful as those of the Supreme Mind. But bringing suggestions of evil, not of good. Knowing them to be delusions and of no real power against him, he cast them out of his mind.

Then came the roaring from the skies, a loud mechanical droning similar to that of the great force generators in the power houses of Jeleri. It rose and fell in intensity, frequently losing itself in the vastness of the green mists. Once, when it was silenced almost entirely, a new sound arose. This was a high pitched scream and it came down to Quor with ever increasing volume. Finally, when his eardrums could hardly bear it longer, a great dark bulk plunged from the clouds into the forest and the sound abruptly ceased.

The mechanical drone was resumed and seemed to be drawing nearer. Quor

continued to crane his neck and look skyward.

At last he saw the strange visitor from the skies. There was a slim tapered body that gleamed like polished silver, with low wings on either side—thick wings which did not beat but were fastened rigidly to the body—and, odder still, heavily cushioned wheels underneath. Although the scientists of Venus had not yet devised a machine capable of flying, Quor knew at once that this was such a craft.

Its roar was hushed to a smooth purr as it swooped down from the clouds and passed over the jungle with inconceivable speed. It was perilously low and seemed not to slacken at all in its mad rush. In another instant it had gone by and was out of sight. The sound of it was growing faint in the distance, when there came a muffled crash, then ominous silence.

Quor hastened in the direction it had taken, sure in his mind that disaster had overtaken the mechanical bird.

As he penetrated more deeply into the jungle his pace was slowed by the soggy luxuriance of the moss and by matted trailing fronds of the giant vegetation. He soon lost all sense of direction.

After much floundering through the swampy footing, and endless battling with clinging tendrils that everywhere impeded his progress, he came at length to a clearing where reposed a huge white ovoid. It resounded hollowly to a blow from the mouthpiece of his blowgun and he sucked his breath sharply as the conviction smote him that this was the egg of an enormous bird or flying reptile.

Then, seeing an oddly clothed human being emerge from the jungle, he concealed himself in the undergrowth.

The intruder was certainly a man like himself, though considerably smaller in

stature than the average Venerian. He wore a close-fitting garment which covered his person from neck to ankles, but was so formed as to encase arms and legs separately and thus provide free movement of these members. Quor imagined it must be exceedingly uncomfortable in the steaming heat of the jungle. He watched the stranger with great interest as he walked around the huge, half buried egg, examining it.

Then he saw the beast-men who were creeping upon the clothed man. These were like no creatures he had ever seen; though somewhat human-like in facial characteristics, they were provided with thick caudal appendages which they used in supplementing their two legs. A hint of thought radiation convinced Quor that they were possessed of at least a measure of intelligence and he quickly perceived that their designs on the stranger were unfriendly. He immediately set his thought to combat their evil intent.

Numbers of the beast-men had surrounded the strange man before he was aware of their presence. When he did see them he stood at first regarding them dubiously and perhaps fearfully, then he spoke a few unintelligible syllables, after which an expression of mirth contorted his features pleasantly. Quor took a liking to the man at that instant.

The stranger was gesticulating now in a manner calculated to convey to the beast-men the information that he hungered. Quor flashed the interpretive thought to one who stood out as leader of the small tailed creatures and was gratified to see understanding follow. Immediately he sent out mental commands that changed the whole attitude of the beast-men toward the stranger. He watched amusedly as the entire troop marched sedately off with their new charge.

Following them up the slope and out of the jungle, Quor kept well behind to

escape observation. Amazement struck him when eventually they reached the rim of a precipice overlooking a circular valley and the beast-men flung themselves to the ground in attitudes of the utmost abasement. And his astonishment grew when he saw the object of their adulation—a gigantic bird-figure set atop a peak that rose from the floor of the valley to pierce the green mists above.

A subtle thought emanation swept up from the valley, seeming to have instantly terrifying effect on the beast-men, who, one and all, crept off silently, leaving the stranger to stand at the cliff edge staring. Quor moved closer so he could command a view of the valley.

And then he saw other things which moved him to action.

FOUR-LEGGED creatures were down there, and two more humans, like the one who stood before him, silhouetted against the green of the sky. One of the humans was fleeing from a great bird-thing with scrawny body and diaphanous wings; he was discharging a weapon which belched flame and loud reports in rapid succession. There were others of the flying things, all bent on the destruction of the two humans. Quor saw that the odds were unequal, that the humans could not hope to cope with their foes. The man at the valley rim did not seem to see or hear, but was looking back toward the jungle. He had seen Quor.

No time was to be lost if the humans in the valley were to be delivered from the menace of the attacking birds. Thinking quickly, Quor knew he would be unable to control the situation mentally—the intelligence of the flying creatures was of too low order to permit of their immediate reaction to his thought waves. He raised his blowgun.

The near-by stranger stared directly at him; he was almost in the line of fire. As Quor released the first winged missile from the tube, he threw himself flat and lay there quiescent as the succeeding darts were fired.

One by one the great birds died under the impact of the charged darts which sped true to their marks, under the propulsive energy which was released as soon as Quor's breath had expelled them from the tube of the blowgun. The humans in the valley were safe.

Obviously not understanding, the man at the rim of the precipice rose up with harsh foreign words spouting from his lips. His face was red with anger and one of his hands rose with a stubby metallic object he seemingly held ready for flinging.

Reassuring thought waves sped from Quor's mind.

CHAPTER IV

Night Mists

KENT, the aviator, sensed dimly that pistol shots had resounded in the valley, but their possible significance was lost to him in the primary consideration of this amazing, pale giant who stood expelling from a blowgun missile after missile that whizzed spitefully when they passed him. Had he been of normal, clear mind he would have known at once that no marksman at all familiar with his weapon could miss so consistently. As it was, it did not occur to him that the savage might be directing his fire elsewhere.

When the fusillade was over Kent sprang to his feet and drew back his arm to let fly the end-wrench he had gripped so tightly. But he was deterred in a strange manner.

At first he thought the savage had called out to him but this was not the case. There had been no sound, only an

impression, deep in his consciousness, that he was facing a friend rather than a foe. Swiftly following, came other astounding thought-revelations. And he saw that the face of the big fellow radiated only kindness and a high degree of intelligence, that it was not at all the countenance of a belligerent or ignorant barbarian. Kent's gaze shifted to the valley at the other's suggestion.

Down there he saw two of his own kind, a man and a girl. Near them a horse was tethered, and streaking across the basin was another horse with trailing halter. There were the carcasses of several winged monsters like the one he had seen before, but now he knew that it was at these that the blowgun darts had been fired. He turned again to the chalky-skinned giant who now stood at his side.

The big fellow smiled engagingly and for the first time spoke. "Quor," he rumbled, indicating his own person with the fingers of both hands turned inward.

"I'm Stanley Kent," the flyer grinned back. "Just plain Kent will do, without the handle." He saw that the other understood perfectly, though the words must be meaningless to him.

Quor repeated experimentally: "Kent." His accompanying thought flash was one of approval.

The two were fast friends from that moment.

A shout came up from the valley; the man and the girl down there had seen them.

"We must go down to them," said Kent.

Quor nodded agreement and immediately cast about for a means of descent. At this point the cliff wall that separated them from the valley was sheer. A quarter mile to the left a less precipitous slope was presented but, even there, it was dangerous. Nevertheless Quor set out confidently toward that point.

As they neared it, Kent was aware of intense thought radiations which originated in the mind of his new friend. It was incomprehensible to him, this apparently effortless ability of Quor to externalize and make understood his ideas. Kent found his own mind intent on the desire expressed wordlessly by Quor. He focussed his gaze upon the steep slope beneath them and pictured a series of footholds and a rope that led downward. With unbounded astonishment he saw Quor let himself over the edge and proceed toward the valley. The footholds *were* there, and a dangling ribbon of tough fibrous material.

Wondering, he scrambled down after the man he had thought was a savage.

THEY found the two in the valley awaiting them. The girl, slim and self-possessed in mannish riding attire, came forward with hands outstretched to Quor but with her brows raised questioningly to the flyer. "Thank you," she said simply.

Quor made no reply but his wise eyes spoke volumes. It was easy to see that the girl's frank smile had captivated him.

Still she looked to Kent for an explanation. But he vouchsafed none, for he was observing her companion with narrowed gaze. Pedro Martinez he knew by repute and that repute was none too good all the way from the border to the Utah line. Pedro stood back, glowering.

At length the girl demanded "Who's your friend?"

Kent regarded her solemnly. He could not determine whether he liked her or not. She was a good-looker, certainly, but she carried herself with an air of arrogance, that nettled him; her smile seemed to him one of amused tolerance.

"I don't know," he answered shortly.

The girl bristled. "At least you might be civil," she flared. "Both of you. He didn't answer at all when I thanked him,

and, after all, I'm not particularly interested. I merely wondered if the big brute is civilized; it is evident you are not."

Kent chuckled. He decided that he liked her. "You'll find him one of the most civilized men you've met. Name's Quor. Doesn't speak English, but'll make himself understood, all right. Where he came from I don't know—nor where we are."

The blue eyes of the girl widened and she looked upon Quor with quickened interest. "I'm Ruth Owens," she offered.

Then she flushed perceptibly and Kent knew that a definite expression of Quor's admiration had been transmitted to her.

Pedro pushed forward, leering. "Señorita Owens is in my care," he averred.

"Was," Kent amended, eyeing the fellow coldly.

The guide went for his belt but Kent's hand beat him to his own holster. As swift as the head of a striking rattler it darted out and the six-gun dangled from his fingers. "Reckon I'd best look after this," he drawled. "It seems to be loaded."

Pedro cursed venomously in Spanish, but the girl had thrust her slim self between them. She eyed Kent frigidly.

"Give me that postol," she demanded.

The flyer smiled down at her from his six feet of lean hardness, holstering the shooting iron as he replied: "Sorry, Miss. You see, I know Pedro; you don't."

Through all this Quor had stood with perplexity written large on his honest countenance. Now, recovering his mental control, he sent out a thought flash, beseeching, conciliatory.

The effect was instant. Pedro recoiled, his dark face blanching. The girl's expression of hauteur gave place to one of pleased surprise.

"Why!" she exclaimed. "He talks with his thoughts."

Kent relaxed his tense muscles; his animosity toward Pedro was forgotten. But he kept the six-gun.

"Brujeria!" the Mexican gasped. "Witchcraft!"

PEACE restored, Kent took charge of things. "It's getting dark," he warned. "We'd better make camp. What say, Pedro, want to go get Miss Owens' pony? You, Quor, some firewood? Understand?—dry for burning—branches."

Ruth Owens laughed delightedly. The big fellow she had thought uncivilized had caught the flyer's meaning before his words were uttered and was already on his way to a brush clump near the steep slope.

"He's way ahead of you," she commented.

Kent grinned; the girl had decided to be friendly after all. He sobered as his gaze wandered from Pedro, who had gone off grumbling into the mists, to Quor, now busying himself in the queer brush.

"He's way ahead of us all," he declared. "Something—"

"What is it all about?" the girl interrupted, somehow frightened by Kent's dubious manner. "First—"

"I know." Kent started to unstrap the saddle packs from the tethered horse. "First there was the Painted Desert and the sun and all, just as usual. Then this."

"You too?" breathed Ruth. "It came to you that way too?"

Kent nodded. It was a mighty queer business, all this, but he did not want to alarm the girl. He said cheerfully: "We'll all feel better after we have a big fire roaring. We'll warm ourselves, then sleep over the matter, and get our bearings in the morning."

Quor was back, staggering under a

huge load of what seemed to be long cylinders of compressed lignite. Uniform in dimension and shape. Kent stared; these had never come from the midst of that soggy brush clump. It was prepared fuel—*manufactured*.

"Must be getting old and dotty," Kent muttered. But he started the fire—with completely dry stuff like excelsior which Quor handed to him.

Darkness came suddenly and with it a chilling of the mists which penetrated to the very marrow of human bones. The fire, soon intensely hot and practically smokeless, was life-saving. Kent and the girl huddled close to its warmth; Quor, for all his scarcity of clothing, seemed accustomed to the damp cold. He went out into the mists for more fuel.

"Pedro is gone a long time," the girl ventured.

"Yes."

"You don't think much of him, do you?"

Kent did not want to go into details. "Not much," he replied.

Neither of them spoke of the things uppermost in their minds—of the mystery of this place and the manner of their finding it, or Quor's supernatural powers, of the eerie sounds in the green mist surrounding the small fire-lit area.

"Men *wouldn't* like him," Ruth said at last. "I find him very attractive." She was baiting Kent.

"Many women have," he observed drily.

Then the uncanny red-green night was made hideous by a yell of sheer terror—Pedro's. There was the rapid thud of hoofs and Tex, riderless, plunged into the fire-lit circle like a phantom out of some equine ghost-realm. Ruth choked back a little cry; Kent dived for the crazed animal, dexterously caught him by a combination of old time horse-wrangling and soothing words restored him to something approaching a state of

calm. At least he managed to get him tethered beside the other pony.

"Good work," Ruth applauded. "But Pedro—wonder what happened to him."

As if answer to her words a reassuring thought flash came to them both. Open-mouthed, they stared into the wall of mist where a bulky mass was taking form. It was Quor, coming in toward the fire with Pedro's limp form draped across his broad shoulders.

THE guide, only half conscious when Quor stretched him out by the fire, babbled incoherently of witches and demons. His language became obscene.

"Cut that out!" roared Kent.

"Shall I put him to sleep?" It was as if Quor had spoken calmly and steadily, though he had uttered no word.

Kent nodded, marveling. Immediately there came a pulsing in his temples, a not unpleasant throbbing sensation in the innermost recesses of his brain. Quor was peering fixedly at the writhing Pedro, who quickly became still. Powerful mental radiations were at work. The guide's eyes closed and his breathing was that of natural sleep.

"It's hypnotism," Ruth concluded.

Kent said gravely: "It's more than that." He turned to Quor, his voice vibrant with something akin to reverence. "Tell us," he begged, "who you are and where you're from. Where *we* are. What power it is that you use and which seems to be all around us."

Quor inclined his shaggy head in consent and squatted cross-legged before them. "Ruth. Kent," he said carefully, as if in preface to long dissertation. No further words issued from his lips, but their minds were as cognizant of his projected thoughts, as if he had continued to speak in their own tongue:

"I am Quor, voluntary subject of a scientific experiment. This is the island of Lixis. The power of which you speak

is that of the mind, the only real power. Know you not that mind is substance, that thoughts are *things*—to work with and to use? That all which mortals ordinarily speak of as matter is actually unreal and unsubstantial, an illusion of substantiality created by their own thoughts?"

"There is no island," objected Ruth. "We are in the midst of the Painted Desert."

Quor looked puzzled at this, then a light seemed to break in on him. "Undoubtedly you speak the truth," he agreed. "This seeming paradox is the result of the experiment; those whom I serve have transplanted Lixis from my world to thine."

"Kent! He means—he means he is from another planet," Ruth exclaimed. "All of this, the jungle, the mists, the night when it should be midday, is a part of *his* world. Brought here to us."

She was captivated by this last thought which Quor had projected. The flyer was more interested at the moment in what had been conveyed regarding the nature and power of the mind. He remembered having read similar theories. Metaphysics.

He pointed to the fire. "Quor," he asked, "is it possible that you *made* this fuel? By means of thought energy solely?"

The big man looked surprised. "So elemental a thing as that is no difficulty at all. Very complex transmutations, of course, are only for the older and more learned servants of the supreme Mind."

"Supreme Mind?" Ruth's eyes widened in new interest.

"It is everywhere, is all knowing, all-powerful. All substance. Matter as conceived by our corporeal senses is but—"

He leaped to his feet, breaking off in the train of thought. Out there at the very rim of the fire-lit area was a circle

of faces, grim, poseless faces with goggling eyes that stared blankly.

Ruth shuddered. The hair on the back of Kent's neck raised. Thousands of the kangaroo-men were pressing in on them. With them came mighty radiations of alien thought—black, sinister, evil.

Kent drew Pedro's six-gun. The horses whinnied frantically, reared and plunged. New and mightier thought waves mingled with the alien vibrations—beat them back.

The girl nodded and her eyes closed. Kent's brain was awlirl. Through the maelstrom of conflicting forces that hammered at his inner consciousness came Quor's declaration of the necessity that he sleep.

That was the last he remembered.

CHAPTER V

God of the Valley

DEEP and dreamless slumber, like a stupor. The day had come when Kent struggled out of it. Gloomy, mist-shrouded, and dripping, but still it was day. He shivered. The fire was a heap of blackened embers. These details were the first to impress him.

Then he was alertly conscious of everything. Near him was the girl, still asleep. Someone, undoubtedly Quor, had tucked one of the blankets around her. The circle of staring faces was gone; so was Quor. So too, Pedro and one of the horses.

Kent searched in vain for the six-gun. After which he gave vent to his feelings as he had not done in years, letting loose a string of oaths which startled the remaining pony to his feet and brought the girl out of her blanket. The place was getting on Kent's nerves.

Ruth Owens wagged a reproving

finger. "I *never* wake up with a grouch," she declared.

The flyer grinned sheepishly. "Sorry," he muttered. With a sweep of his arm he indicated their surroundings. The girl sat up. Round-eyed, she surveyed what could be seen of the valley.

"Where's everybody?" she demanded.

"I've been wondering too. Contrary to what he would have expected, Kent found the girl very bewitching, tousled and sleep-flushed as she was. "We—I—don't you think we ought to have breakfast?" he stammered.

Ruth laughed, scrambling to her feet. "I know I'm starved. If you build a fire I'll scare up the bacon and beans."

"Everything's pretty wet."

"There's an alcohol stove. Pedro left it around somewhere."

Marveling at the girl's lack of fear under the circumstances, Kent went looking for the stove. He found it after a little search and returned to where she was waiting with the frying pan.

"You don't seem worried," he observed.

"Oddly, I'm not. But I should be if it weren't for—oh, I don't know—a little of Quor's mind-control, I guess."

"Mm-m." A look of exaltation in the girl's expression kept Kent from commenting. He lighted his pipe, finding it bitter knocked the bowl against his heel, wasting a load of precious tobacco. With the aroma of frying bacon and steaming coffee in his nostrils, he realized he was very hungry.

"Just what do you make of it all?" he asked finally, when they were eating.

"I believe it's what Quor conveyed; this is a slice from another planet that has been plumped down on mother earth. Why, I'm darned if I know."

"Must be Venus then," Kent mused. "That's the one that has the cloud envelope. What gets me mostly though is

the demonstration of Quor's mental power and his talk of the Supreme Mind. It's creepy."

"I don't see anything supernatural in it. He's developed a faculty we all possess but never use."

"We couldn't do what he does."

"Not in our lifetime probably, but in generations of application to the study. Why, you've seen instances of telepathy and of mental healing, haven't you?"

"Ye-es. Always thought it was uncanny too. I've heard some preaching about the allness of mind and the nothingness of matter, as well, but never saw it demonstrated like this."

Ruth put down her tin cup, sighing contentedly. "I think it's wonderful."

Kent went on thinking aloud: "This Supreme Mind I suppose is his deity. Not so foolish, the whole thing, even when you consider it from a scientific standpoint. Our own physicists tell us there is no sound without ears to hear, no light where there are no eyes to see. There isn't any physical pain without a mind to sense it. A little whiff of ether and nothing at all exists to the patient's senses."

Ruth gathered the tinware and started scraping it. "Quor'll be back," she said confidently.

Kent went on as if he had not heard: "Matter, they tell us, is made up of molecules, molecules of atoms, atoms of protons and electrons which are nothing but concentrated charges of energy. But they can't tell us what energy is. Perhaps it's Quor's Supreme Mind."

The girl's eyes were shining. "You're seeing it too," she exulted. "To me—"

A shriek interrupted her, a long-drawn metallic wail that echoed from the valley walls and then was gone. The swift blanching of her cheeks showed that fear had returned.

THEY had not noticed that the green mists were lifting; now they saw the huge bird-image in the middle of the valley and could almost distinguish the far wall of the great enclosure.

"Look!" cried Kent. "The kangaroo-men. A million of them around the image."

Ruth whispered, "It's a ceremony. Wonder what it means."

There were not a million of the queer creatures, of course, but certainly there were thousands. They had gathered in a huge semi-circle before the great stone bird. The low wailing notes of a monotonous chant rose on the dank air.

Wondering, Kent and the girl watched as the heads of them bowed and rose alternately in waves of rhythmic motion. Suddenly a horseman broke through from within the circle, riding directly toward them.

"It's Pedro!" croaked Kent. "Where's Quor?"

"He'll show up," Ruth asserted. "I'm sure of it."

In a flash Kent knew what had happened during the night. With the power of his mind Quor had beaten back the menacing kangaroo-men and had followed them, until they were at a safe distance from the fire where his new friends slept. Pedro, awakening, had recovered his pistol and gone forth on his own. Perhaps he thought to escape the valley by himself, deserting and leaving the others to the mercies of whatever horror it was that had driven him, gibbering, into the camp the night before. Perhaps he had merely gone to kill Quor, considering him the author of the happenings which, to his superstitious mind, were of such ghostly nature. Kent could not believe that he had succeeded in slaying Quor, if that had been his intention. But where was the big Venerian, if Venerian he was?

Pedro did not pull up his horse until

he was almost upon them, the flying hoofs of his mount scattering the ashes of the fire in every direction. On the fellow's dark countenance was a leer of triumph that seemed to have frozen there. His black eyes gleamed with a mixture of hate and lust.

Kent's arm went around the girl to pull her aside. Guffawing, Pedro drew up beside them.

"*Venga aqui.*" He leaned out of his saddle, reaching as if to pinch the girl's cheek. "Come here, *enamorada*—"

Kent struck blindly but effectively. Taking it squarely on the chin, the guide was toppled off his horse, striking the sand heavily.

"The whelp!" Kent turned to the girl, ignoring the prostrate Pedro.

Looking past him with a gaze suddenly panicky, she screamed: "Look out, Kent."

He ducked simultaneously with the roar that came, but was too late. Something that might have been the side of a mountain hit him and knocked him flat. Pedro, firing from where he lay, had scored, his heavy .44 slug crashing through Kent's shoulder.

The flyer was unable to rise. A horrible numbness had taken hold of his left side and arm; the muscles of his entire body refused his bidding. A film covered his eyes; through it he saw dimly the struggling of the girl with Pedro, saw him sweep her from her feet and ride off with her.

"Quor! Quor!" he called out in his extremity.

The moaning chant of the Kangaroo-men was his only reply.

IT was many minutes before Kent was able to drag himself to his right elbow. He saw that he was bleeding profusely from a gaping hole which told of a shattered shoulder blade. He managed to sit up, swaying dizzily. To tear

strips from his shirt with his good right hand was a difficult matter, but he'd have to stop the bleeding somehow or he was done for.

Excruciating pain came as the numbness wore off. He managed poorly with his efforts to bind the wound. Minute by minute he was growing weaker. He began to despair of making the grade.

Over there by the great stone bird, he realized vaguely, shouts now mingled with the chanting. He couldn't see that far through the bloody haze. But something was going on that sounded menacing. He thought he heard Ruth Owens scream once. If only—

"Kent." It was Quor's mellow rumble; the big fellow stood over him as if he had materialized out of the air.

The flyer slumped back in the Venerian's arms.

Then came the most astonishing thought message: "My friend, you seem to be wounded grievously. The hurt must be treated mentally and you are to help me in the work. Bear in mind that this mutilated bone and tissue is no part of the real *you*, which is mind alone. Banish all thoughts of fear at once. Declare to yourself the truth that matter is nothing, that mind is everything. Come now—*think*."

Kent was hardly able to think at all, and at first his sluggish mind rebelled at the idea. It was utter nonsense, this procedure of Quor's. And yet he had seen the big fellow control matter in such a manner as to cause unseen electrons to assemble into atoms which built up into molecules, materials and objects. The rope by which they had descended into the valley. The fuel. Then too, he recalled reports of recent experiments of New York physicians, in which stomach ulcers of long standing had been cured by mental treatment alone. Perhaps . . .

Quor's thought radiations were beat-

ing at his consciousness, reviving him. He found himself responding to the mental suggestions; his own thought became imbued with the idea that Quor was absolutely right about the thing. Belief came, definite assurance.

The Venerian, smiling, extended his hand. Grasping it, Kent rose to his feet dizzily. His knees gave way; then, buoyed up, he stepped out firmly and confidently. His vision cleared; he saw the bleeding had stopped.

"The girl!" he cried, remembering. "Pedro's got her."

"I know." Quor's thought came without reflection of fear. "He has joined with the forces of evil. At the present moment Ruth is in preparation for rites that will make of her a priestess of the barbaric cult infesting this valley. You and I will prevent it."

Kent could see now that the kangaroo-men had closed in around the bird-image, tightening the circle of quasi-humanity until they were a close-packed, milling group. From their midst, and directly before the colossal fetish, a thin column of rusty smoke spiralled upward.

"A SACRIFICE!" groaned Kent. "Pedro wouldn't—"

"He doesn't suspect. She is to be mutilated, made hideous for the god of the valley. When Pedro learns the truth his objections may make of him our ally instead of an enemy."

Kent doubted this last. The guide was yellow clear through, a devil with the women perhaps, but standing up to no man unless the odds were very much in his favor. Or unless he could shoot from behind.

A great hubbub rose from the massed horde of kangaroo-men; shrill voices could be heard above the din, reciting some outlandish litany. The spiral of smoke leaped to new heights, mingling

in a spreading cloud with the green mist above. Quor seemed lost in thought, none of which was radiated.

"How do we go about this?" Kent asked. "Two of us against that rabble."

"There is no real power in evil," Quor assured him. "We must do it with the force of right thinking. And, forget not that the Supreme Mind is with us."

Quite incomprehensible to Kent, and yet he had seen . . . his right hand strayed to his left shoulder, contacting a mass of clotted blood that stiffened the torn sleeve of his shirt. The wound itself was completely closed; it throbbed a bit, but not unbearably. One who could do *that* might do almost anything.

Quor set out toward the shrine of the valley god, the flyer at his side. Kent's gaze fell on the blowgun the Venerian still carried.

"You'll use this?" he inquired.

"The slaying of thinking creatures is forbidden."

"But of those?" Kent pointed into the green mist overhead where a number of dim forms circled. He could not have told what had drawn his attention to the pterodactyls; alien thoughts were crowding in on those conveyed to his mind by Quor.

"They are different," admitted the Venerian.

By now they had reached the outer fringe of beast-men. Halting, they looked out over the heads of the creatures to the altar, which was set in a broad niche of the pedestal immediately beneath one of the huge claws of the stone bird. Wickedly down-curving, those talons, and seeming about to close in upon the little group in the niche.

Kent's blood curdled as a quavering cry rose and fell. It was Ruth Owens.

"Quor! Kent!" she called imploringly.

CHAPTER VI

Battle of Thoughts

THEY saw her struggling with two robed giants up there at the altar. Not kangaroo-men, but chalky-skinned humans of bulk and mold similar to Quor's. Beyond the smoke pillar, in the shadows of the niche, were others. They had Pedro, too, but he was offering no resistance. Kent exclaimed sharply at sight of another creature in the swirling vapor, a thing with no slightest humanlike characteristic, a blob of quivering jelly perched atop a stone slab. A single glowing spot in the mass gave evidence of life; its pulsations brought waves of conflict to Kent's consciousness. These were the thought-forces which strove against Quor's. That nucleus was the controlling mind of the valley, the Oracle of the stone bird.

Quor stalked through the press of beast-men, a way opening magically before him. Confused and uncertain, Kent followed.

The horde of misshapen votaries had become silent. Now, as if at a signal, they prostrated themselves. Kent could almost *see* the emanations that struck out from that ghastly, throbbing nucleus.

But the answering thought-waves from Quor's great mind steadied him and reassured him. He plunged forward to the very edge of the altar where the big Venerian faced his mysterious adversary calmly.

"Help me," came Quor's astonishing plea. "Help me, Kent. Use the utmost power of the faculty you call your will. *Will* the downfall of this false power. *Will* it with all your might."

"My will," Kent muttered without confidence, "is not of much use. I've had no—" He paused; a feeling of power surged through him, and he found himself bending his efforts to the

task. Sweat trickled down into his eyes. His thought blended with Quor's.

Up there at the altar there was momentary consternation. One of Ruth Owen's captors had drawn a white hot iron from the fire and held it before her eyes. He dropped it with a clatter that seemed deafening. The glowing nucleus of the Thing up there swelled to twice its former size. Its pulsations increased in rapidity until Kent's mind was thrown into chaos. Quor's thought-flashes were dimming in his consciousness.

Then he saw the girl stand free of her captors. Her long golden hair had fallen about her shoulders; her clothing was torn to shreds. But her countenance shone; she was in complete mental rapport with the big Venerian.

"Kent! Kent!" her cry came beseechingly. "Don't fail us. Come back in the thought stream. Help us—we three can do it."

He struggled out of the confusion of mind which had attacked him. Once more the pulsations of the Thing's nucleus were weakened.

Then Pedro Martinez went raving mad. He screamed bestially and laughed in wild frenzy. His pistol exploded again and again, the slugs tearing through the jelly-like Thing before him with no effect.

Kent blinked. Had he seen that claw move? The claw of that monstrous bird-thing that brooded over the valley, over them all? It was no trick of his vision; the talons *did* strike down, slowly at first and then with a swift clutching motion, plucking the screeching Pedro out of the niche and swinging him aloft into the green mists and the rusty smoke column.

With the motion there came faintly to ear the grinding of gears. There was nothing of mental power in this, nor of necromancy. It was purely mechanical.

But the kangaroo-men broke forth in a new chant of adulation.

Pedro's hoarse cries became fainter as the great claw swung him higher into the green vapor. Seventy-five feet, a hundred—then he was flung out and away to crash to the ground, broken and moveless. The great claw returned to its place with a jarring thud.

QUOR strode up to the very horns of the altar, the white-skinned priests retreating before him. Kent ranged alongside, and the girl flung herself upon them with a little sob of relief.

The Thing on the slab quivered and expanded with a fresh accession of energy and the three concentrated the power of their combined mentalities against it. Suddenly the glow of the nucleus died out and the Thing itself shriveled, flowing over the edge of the slab and vanishing in a crevasse. For the moment at least, it was vanquished. Back in the deepest shadows of the niche the priests were a quaking, chattering crew, their affrighted eyes raised to the green mists. A din of hysterical squealing came from the beast-men behind.

Sensing a new menace, Quor and his two friends swung about.

Ruth Owens breathed awedly: "The rukh. So help me it's Sinbad's rukh come to life."

Up there on the rim of the valley teetered a living counterpart of the great carved fetish. A monstrous bird, newly hatched, with fragments of the enormous egg still clinging to its feathers. It wobbled on its massive legs, squawking in an immature voice that yet was thunderous. The kangaroo-men, in wild disorder, were streaking in every direction across the valley floor. Their god had come to life and they were afraid.

Quor raised his blowgun, then with an exclamation of distaste tossed it to

the ground. His thought energies went out against the feathered incarnation of evil on the cliff.

The great bird spread its fifty foot wings experimentally, beat them gently, the while a full-throated challenge issued from between the widespread members of its massive beak. Raucous answering shrieks came down out of the mists. The pterodactyls!

The rukh took wing awkwardly, soaring erratically out over the valley. But each measured beat grew stronger, more sure, and very quickly the gigantic fledgling found itself. With a swooping rush it skimmed the valley floor, gathering up scores of the fleeing beast-men as it passed. Beating the air to a whirlwind, it rose until almost lost in the mists, and dropped its screaming, wriggling prey to the same death which had overtaken Pedro. Then it drove down toward the altar.

The priests had fled the scene. But Quor and the two earthfolk stood their ground. The Venerian's gaze went up into the mists where the pterodactyls hovered; his thoughts, reinforced by those of Ruth and Kent, flashed out.

Like a squadron of pursuit planes attacking a lumbering bomber, the pterodactyls came down. A dozen of them, at least—darting at the incredibly vast bulk of the intruder, tearing with beak and claw, making the valley ring with their harsh battle cries. Confused by the onslaught, the rukh blundered against the pedestal of its stone replica, shedding a cloud of feathers upon the three at the altar.

Battered by quills as thick as a man's thigh, choked with the dust and reek of ages that showered from the monster's body, they retreated into the niche. The hideous sounds of the conflict beat at their ears, making conversation impossible, well-nigh blotting out thought itself.

Something that moved over Kent's head attracted his eyes. It was the claw of the bird-god, turning slowly over, hooking upward, then plunging into the breast of the feathered monster. Up, up it went, carrying the wildly fluttering giant with it. The pedestal shook as gargantuan wings beat at the stone sides of the image. A rain of loosened dirt and crumbling stone came down. The three humans ran out from the niche and into the valley.

Aghast at the enormity of it all, they watched as the battle of the aerial monstrosities was carried aloft by the relentless mechanical claw of the ancient idol. Seeing that the monster of stone was fully able to cope with its living counterpart, the pterodactyls ceased their heckling charges, soaring in great circles high overhead. Like huge vultures, they waited for the kill.

In the last mighty convulsion of death, the rukh flung its full weight against the inflexible, lifeless thing which clutched at its vitals. The ground trembled as the fetish collapsed in a thunder of dislodged stone blocks.

Hiding in its crevasse, controlling the mechanical claw, the nameless Thing of the protoplasmic mass and glowing nucleus, the Oracle of the valley god, had accomplished its last destruction.

QUOR stood with his shaggy head cocked as if listening. The green mists had lightened. Dimly the sun shone through—two suns, one small and weak, the other large and vastly brighter.

"It is the call from those I serve," came from Quor. "My work is done; I return. Come with me, my friends. Leave this world of materiality which is yours. Learn with me the science of mind. Dwell with my people in harmony and understanding. Come."

Ruth and Kent drew away. The earth ties were strong, the wish to return to

familiar things and familiar places was not to be ignored, struggling within them for mastery over the call to adventure—and to something else.

In Kent's eyes the whole scene was like the tricky dissolving of one motion picture into another. There were suggestions of the valley of the rukh superimposed upon the broad expanse and the colored mesas of the Painted Desert, the one merging into the other.

"It is for you to decide," Quor's thought declared. "Now!"

With a little cry of assent and of yearning, the girl went into Quor's waiting arms. The flyer was undecided, wavering.

Then a chaos of violent forces swirled about Kent, sweeping him up into a mid-region of conflicting perceptions. There was a tremendous jar as of the warping of the very universe—blackness.

A hot breeze fanned his cheek. His eyes, he discovered, were tightly closed; he opened them. Of the valley of the green mists he saw nothing. Quor and the girl had vanished. Above was the familiar blue of the Arizona sky. In the distance was the White Mesa, a landmark Kent knew well. The sun, his own sun, shone blisteringly down.

Consumed with regret over his own indecision, tortured by thoughts that were part doubt, part belief, Kent sat down on the desert floor. A vision of Ruth Owens as he had last seen her rose before him, bringing a pang of loss and of the frustration of feelings he had not known existed. Now that it was too late, he knew how much she had come to mean to him in the short time he had known her. Fear for her safety overwhelmed him. He groaned, and the silence mocked him.

He was tempted to the belief that he had dreamed it all, but an examination of his shoulder convinced him this was not so. The wound was real, now com-

pletely healed and showing clean white scar tissue as if it had been tended by the most skillful of surgeons. His arm moved freely and with the merest suggestion of soreness.

Dazedly he cast about for evidence of a material nature. Quor's blowgun lay in the sand a few feet away. Eagerly he picked it up and examined it.

There was the long, slim tube with the mouthpiece. A magazine contained a number of winged darts that were of considerable weight. No man, however great his lung capacity, could propel these darts with the force needed to kill one of those pterodactyls. Experimentally, Kent blew with all his might through the weapon and was just able to drive the first missile out of the end of the tube. Then he saw the chamber near the muzzle.

Here was indisputable proof that the men of Venus controlled forces of which his own world was almost entirely ignorant. The chamber was a circular cavity of amazing intricacy of construction, a veritable labyrinth of infinitesimal passages radiating from a central area in convolutions oddly reminiscent of the gray matter of the human brain.

AS if it were a flash of inspiration, the explanation came to the flyer. Even in the use of what had seemed to be a primitive weapon, Quor's mentality was the active force. The breath was used only in carrying the winged missiles from the magazine to the point where the chamber encircled the tube. There, projected through energies took up the work, propelling and directing them as desired.

Kent looked off into the distance and saw a glint of sun on the fluttering silvery speck. His heart pumped a little faster as he realized that it was a rescue plane. They were looking for him; he'd have to go back. Others would be look-

ing for Ruth Owens and also for Pedro.

He had not the faintest idea of what he would tell them when they found him. They would be sure to ridicule the truth—he'd be forced to claim forgetfulness of all that had occurred. Amnesia—that was his best bet. Of course he would claim to know nothing at all about the girl and her guide; there was not a shred of evidence that he had as much as seen them. The authorities would search for a few days and then give it up as another mystery of the desert.

But there would still be his memories. He groaned anew. If only he had certain knowledge of Ruth's whereabouts!

Unwittingly, the intensity of his emotion set a spark to activate the precisely correct cells in his own brain. A message went winging off into space, and immediately he was conscious of the answers to his mental questionings.

Closing his eyes, he could see them—Ruth and Quor. On the shore of far-off Lixis they stood, arm in arm, surrounded by Quor's people. A ship of curious design stood by. Ruth was safe, and more happy than she could ever have been on earth. Her restless spirit had found serenity at last. She would remain with Quor until the end of her days, and would never regret.

A great load was lifted from Kent as by magic. He opened his eyes and saw that the plane was circling nearer. But that contact with the distant world persisted to a certain degree. The mental energies of the Venerians were centered upon the lone flyer; other truths were borne in upon him.

That screaming intangibility from out of the skies had been merely a demonstration of the powerful thought forces used in transmitting Lixis across space to a temporary berth on the floor of the desert in Arizona. The experiment of the Venerian intellectuals had been a

complete success, he was assured. They, knowing nothing of the universe save through the searching power of thought, knew as much as our astronomers. Using thought forces alone, they had sent out a one-man expedition to return with a representative human being and inanimate objects from earth. And they had accomplished their purpose.

The matter of the valley-god and the hatching of the great bird had been unanticipated. The powerful thought waves used in their experiment had, unfortunately, stirred dark forces of ancient days into action, forces that had long lain dormant and were now forever destroyed. Perhaps another demonstration at a later date. . . .

Kent's thoughts strayed to the circling plane. He lost the contact with those distant minds.

IN the days to come he would search diligently for the secret of those marvelous powers of Quor and his fellows. Some measure of enlightenment was to come; even now he was perceiving as demonstrations certain everyday happenings on earth he had previously mistaken for coincidences. Instances of telepathy and of the power of collective thinking. Why, whole nations had risen to power over night, been involved in wars, or had fallen into decadence merely because of this latter power.

Musing, Kent was moved to the conclusion that he had caught at least a glimmering of the truth of being. At any rate he had peered for a time into the elementals of a knowledge greater than his own, greater than any with which he was acquainted.

A new content stole over him as the rescue plane spiraled down to a landing. He ceased even to regret Ruth Owens. She had given herself to a better man.

Seven Perils to Quiches

By JOSEPH WM. SKIDMORE

Ancient traditions of Mexico are called on to give the inspiration for this story. Full of legendary adventure, it leads up to an exciting episode at the end, which harmonizes with the trials of the unconquerable hero.

THE idea for "Seven Perils to Quiches" is taken from the religious beliefs and traditions of the Mexican Indians. These early folk, like most if not all idolatrous nations, had preserved the thought of the soul's immortality.

Their paradise was called Tlalocan. Hades was thought to be a dark cavern in the center of the earth, but where, however, there was no other misery or punishment than utter darkness.

They believed that Xuihcoatl, a large and beautiful serpent, dwelt in a mysterious, wonderful cave sacred to the Water God, in the country of the Misticas. Xuihcoatl cared for the souls of children after their death.

Spirits on the devious route to Tlalocan were compelled to suffer many hardships and endure great dangers before their celestial happiness was to begin.

The ancient priests of Mexitli placed in the hands of their dead, six aloe leaves marked with mystic characters. On one of these was to be the passport through the six perils that awaited them.

"The first was that of the falling mountains, between which those who passed would be, if not supernaturally protected, crushed to pieces; through these the road lay, and also through the

path of the great serpent. This was the second trial. Darting lightning from his eyes, and vibrating his tongue of fire, he seized on and devoured all who were not provided with mystic aloe leaves. The next danger was from crossing the river of the crocodile, where that monstrous reptile was as dangerous as the great serpent. The fourth was the passage of the eight deserts; the fifth that of the eight hills; and the sixth, the windy plains in which the mountains were blown up by the roots. After this, the way was plain, and the Temple of the Sun opened to receive the happy conqueror"—H. Chester's *Universal Mythology*.

I trust the reader, in following the strange pilgrimage of Gucuma, will find in his weird adventures a mystical significance with the religious beliefs of the ancient Mexican Indians.

CHAPTER I

The Bronze Bow of Acolhx

GUCUMA, the young but mighty Aztec prince, knelt reverently before the couch of Tepaux, the wisest and most ancient of the tribal priests.



"The Monster of the Valley!" shouted the prince from his lofty station on the pillar, as a horrible creature lumbered into the clearing.

"Wise father, I have come in answer to your summons."

"Arise, Gucuma, my brave and stalwart son," faltered the aged priest in the guttural Nahuatl tongue. "To-day, at the sun's highest flight, thy years total twenty-one. Thou art the strongest and most skillful in combat of all Aztecs. That is indeed well, for the day of thy pilgrimage of peril has come. Arise and listen well."

Gucuma stood, stretching to a magnificent, sinewy, bronzed height. No three of the strongest warriors of the tribe could best him in wrestling. His skill with bow and arrow and war weapons was a tradition of all Tollan (the lowlands).

"Yes, wise father," spoke Gucuma tensely. "I am all ears for your words of light and wisdom."

The withered priest struggled to a more restful position and gazed with great affection into the black, steady eyes of the young prince. The aged priest was dying, but an inherited, ancient duty must be finished. His incredibly weak and tired voice droned portentously.

"My son, Gucuma, my weak eyes feast on thee this day, and my withered, faltering heart throbs with a great pride. Since thou wert but a mewling babe, I have guided and educated thee. Games and instruction from the most skilled of teachers have given thee that wonder body and thy deadly skill with weapons."

The weakening priest lay back to regain his strength that was melting like the morning mists before a Mexico sun. The young prince remained standing, anxious and respectful.

"It is indeed well that thy strength is like a great bull's; thy sinews quick as the leap of the panther; thy eye keen as the hungry eagle's. These things, with thy agile brain and vast courage, will carry thee through the Seven Perils.

Remember, my son, thou wert bred and trained for this ordeal."

THE erudite old priest lay back exhausted.

"Father, my heart is singing to go."

"Well spoken, my brave one," sighed the priest. "Now make thee careful heed of my words. Thou art to travel alone to the land of Quiches, where rules the cruel and mighty Taloc—the prince of evil. The land of Quiches was stolen from thy father. Taloc, the boastful and wicked, holds that which is rightfully thine. Go to Quiches and wrest from Taloc his power, and take thy kingdom and rule it wisely and with a kind heart. There thou wilt take to wed the princess Najoe. And when the marriage priests have tied thy garments into a knot with those of the fair Najoe, and the priests have walked seven times around the marriage fire and thrown therein incense, thou wilt reign long and happy. Thou knowest, my son, of the seven deadly perils that exist between here and the cunning Taloc?"

"Yes, father. I remember well your words and advice. First I must overcome the foul serpent, Xuihcoatl, that lives in the stinking cave of the Water God."

Gucuma's muscles tensed till they stood rigid, as his sinewy right hand fingered a bronze knife at his girdle. His black, fearless eyes flashed as he continued.

"Second; I must cross the dangerous Pass of the Falling Mountains. Third; the valley of the Great Monster. Fourth; the River of the Crocodile. Fifth; the eight Deserts. Sixth; the eight Hills. Seventh; the Windy Plains. All these obstacles I will overcome—all these monsters I will slay. Then, father, will I slay Taloc."

"My brave lad," shrilled the excited priest, "swear thou wilt do these things!

Swear it by Gucumatz—the Mighty Feathered Serpent—our God. Swear by his golden feather!”

“I swear it, father—by the sacred feather of the Feathered Serpent.”

“Before I die, son,” gasped Tepaux, in a trembling voice, “I give thee two things. First my blessing, and second the sacred bow and arrows of thy mighty ancestor, Acolhx.”

Gucuma gasped with pleasure and astonishment.

“Oh, wise father Tepaux, I am not worthy to bend the bronze bow of Acolhx.”

“Silence, my brave son,” whispered the dying priest, as his thin hands weakly pushed toward Gucuma a long, shining unstrung bow of bronze and a quiver of long metal arrows. “Take thou the bronze bow of Acolhx. Only thou in all the land of the Aztecs art mighty enough of shoulder to bend it. Remember, my son, thy famed weapon was made by the gods, who tempered its bronze, till its recoil is like the snap of the lightning. ’Tis told that the bronze arrows, straight as a moonbeam, and light as the wind, are feathered from the mystic wings of—”

The ancient priest’s voice suddenly died to a low mutter. “I go now to my ancestors! My blessing to thee and—”

Gucuma bent over Tepaux and cried out in anguish.

But Tepaux, the priest, did not hear. He was with his ancestors—in Tlalocan.

CHAPTER II

The Cave of the Serpent

FOR millions of years Eos, the Dawn Goddess, has daily lighted the eastern skies with a flaming blaze of hope for man. Humans have always looked to the east for

the cheerful light that follows the dangerous darkness.

One of these countless billions of mornings an agile, bronzed figure clambered with incredible speed up a great, rocky mountain. It paused on a jagged rock to ease its panting lungs.

Gucuma looked back for many miles across the hazardous valley he had crossed, after fearful hardships. Across that valley rose a mountain that challenged the high blue vault of the skies, with bleak, broken precipices, shattered and disintegrated by the forces of Nature. In that mountain dwelt the hungry serpent that was the first danger—the cave that was the pass which led to the remaining Six Perils, and finally to Talock.

Two weeks of terrible hardships had only toughened and hardened sinews and muscles. There was an implacable look of determination in the dark, almost cruel eyes, as they eagerly searched the mountain-side.

Suddenly Gucuma stiffened. In a vast gorge far ahead and upward was a yawning, black cavern.

“The Cave of the Serpent!” exclaimed Gucuma. Again he swiftly began the ascent, gnawing all the while at a piece of meat from a deer, slain with his bow the day before. With every beat of his sturdy heart he yearned for the moment when he could release a deadly arrow at the tyrant Taloc.

Moving shadows flicked across his path. Instinctively he glanced above. There, circling, were many vultures—an ominous sign of Aztec tradition. An ordinary Aztec would have turned and retraced his steps upon observing the vultures, no matter how important the mission. But Gucuma swung his bow upward and insultingly loosed a flashing arrow toward the feathered carrion eaters. The loathsome, circling vultures flapped away in terror, except the repul-

sive leader, that crashed to earth, pierced from the arrow that still flashed upwards. Fearlessly Gucuma climbed until he had nearly reached the entrance of the yawning cave. As he approached within one hundred feet of the ominous opening, a horrible stench almost overpowered him.

The cave was located at a point where a great cataclysm of nature had taken place, perhaps a million years before. It appeared as though half of the mountain had split off, exposing the cavern opening. It was an Aztec tradition that when the slide had opened the cave, it loosed a great, imprisoned snake that represented the Evil One. Brave as he was, Gucuma used caution, and began scheming to slay the monster that dwelt within.

Guided by an inherent shrewdness he began to gather large bundles of greasewood fagots, selecting only the most seasoned. From a pouch he produced flint and dry moss, and soon had a fire blazing. With one fagot blazing, the others held in readiness, and the great bow ready in his tense left hand, Gucuma boldly advanced into the dreadful cave.

The putrid, overwhelming stench was almost unbearable, but he resolutely pressed forward, as the blazing fagot lighted up the mysterious walls. He noted the sides of the cave seemed smooth—as if chiseled by human hands. At many places along the walls, there were strange inscriptions and rude carvings of fearful, immense monsters. Gucuma, however, spent little time in contemplation of these ancient artistic efforts. He approached every corridor crossing of the cave with infinite caution. He was not to be taken by surprise. The stench became stronger and the cave began to widen. Soon he was in a domed, circular room several hundred feet wide. He lighted another

fagot, and slowly the light seemed to filter to every part of the room.

Suddenly Gucuma heard a scraping, fearsome, loathsome sound, as though a huge, dead body of flesh weighing many tons were being dragged along the rocky floor. The noise came from a far corner that was unlighted. With rare strategy Gucuma left one blazing fagot in the center of the dome and leaped in the direction of the sound with one of the other brightly blazing fagots, holding it high. Then he stopped with a quick jerk, for just ahead in the darkness suddenly gleamed two, great, vicious eyes. Brave as he was, Gucuma gasped, for those glaring orbs were at least six or seven feet apart and as many feet above the floor of the dome.

"THE serpent!" shouted Gucuma. With all his strength he hurled the blazing fagot straight towards the gleaming, evil eyes and sprang cat-like to one side. He heard a writhing and twisting, as of some uncouth, groveling body in travail. The fagot he had cast blazed higher, and Gucuma beheld a startling, gruesome sight. He could now plainly see the head of the mammoth serpent. The large, cruel head, diamond-shaped, was a nightmare horror. The flaming eyes blinked, disconcerted by the burning fagot. Then the stupendous head opened; its jaws were distended to show dirty, repulsive fangs, that were as long as Gucuma's knife. Although his eyes were weeping from the ammonia of the terrible stench, Gucuma raised his bow with fitted arrow, as the incredibly immense body began to slither towards him. The reptile had observed him and was advancing in anticipation of a tender morsel.

THE Aztec's hands flashed to action. His sharp eyes gleamed along a slim, keen arrow. Twang! Swish!

Thud! Like a flash of light sped the metal shaft. With incredibly rapid movements another gleaming arrow was sped straight into the other evil eye. Like lights suddenly extinguished, both eyes of the reptile blinked out. Gucuma knew he had blinded—perhaps killed—the terrible snake. Gucuma stood in the light of the burning fagot, ready to shoot again if necessary. The monster's writhing body tolled and tumbled towards him. Gucuma leaped away to avoid it; standing well to one side, he gloatingly watched the terrific monster die. Blinded and mortally wounded, with the two metal shafts deep in its vicious brain, it leaped and thrashed in crazy convolutions. After a long time it lay inert, its limber coils covering half the floor of the immense dome. Some instinct told the prince that no other beast inhabited the cave, and with a new lighted fagot he went confidently on through the tortuous entrance path of the cave. He flashed a glance rearward for a last look at the slain reptile. Only the scaly, pointed tail continued to oscillate slightly.

Xuihcoatl, the serpent of evil, was slain!

For many hours he carefully made his way, and finally, looking ahead, he beheld the welcome light of day. He began to run, sure-footed as a mountain goat.

With a stentorian cry of joy, he stood in the sunlight. He had gone into the Cave of the Serpent, and now, directly ahead of him was a narrow pass. It was only a few feet wide, and its straight precipitous walls rose for thousands of feet on each side. After a short pause for rest and thought, Gucuma started forward. His heart was filled with exultation. He had met and conquered the first of the Perils.

Twilight came directly after high noon, because of the narrow width of

the canyon and the height of the walls, and Gucuma was soon feeling his way ahead with cautious, exploring hands, for darkness had closed about him.

The bottom of the narrow gorge was carpeted with a foot-thick layer of dust. To the naked legs of the Aztec it felt harsh and rough, like pumice. Each of his sturdy steps set afloat in the humid air clouds of choking dust.

Nature began to assert itself, and even the strong sinews and muscles of Gucuma demanded rest. Directly, he came to harder floor. The canyon had narrowed. He could now place his right hand on one wall and reach the opposite wall with the left. Morpheus was about to claim his tired brain and body. He arranged himself as comfortably as possible on the sharp sand and almost instantly was sound asleep.

CHAPTER III

The Mountains That Moved

THERE came to Gucuma a strange dream—or a vision. He tried to rise—to speak—but invisible, powerful bonds held him securely and stilled his speech. Then, quite distinctly, he heard the familiar voice of Tepaux.

"Gucuma, my brave son, you are in great peril! You are in the deadly pass that closes. Awake and dash ahead. You will soon find a cave on the right. In two hundred beats of your sturdy heart the pass will close, and you will be ground to death. The cave will offer you protection. Go!"

Quicker than the rattlesnake strikes, Gucuma sprang to his feet. His body was wet with perspiration; his heart violently thumping.

Rapidly he slipped ahead, cautiously feeling along the smooth walls. Without warning, a rumbling sound, like distant thunder, vibrated, and the ground beneath his feet swayed. Some strange in-

instinct prompted him to feel towards the left wall. To his consternation, he found that it was moving towards him.

The strange dream had a true meaning. The pass was closing!

He pushed ahead, rapidly as possible. The rumbling and movement increased. He was huddled first against one side and then the other. Once he was nearly stunned as an unusually powerful seismic shake crashed his head against the wall. Strength and skill, even his deadly weapons, were of no avail. In a moment the walls were pressing his body even though turned sideways. Just when he felt he could progress no further, his groping hand felt the edge of an opening ahead. As a startled squirrel darts into its hole, so did Gucuma glide into that welcome opening. He felt cautiously about and discovered that the cave was about five feet high and as many feet wide.

The rocking and twisting of the earth became more violent. Above the tumult of the groaning of the earth in its crazy movements sounded a sudden snap, as though the gates of hell had been suddenly closed. Gucuma instinctively knew that the two walls of the gorge had come together and were grinding against each other in rotating movements.

Gradually the violent tremors subsided, and with a last, mighty, earthly groan it became quiet. Gucuma started to move towards the opening of the cavern to investigate. As he crawled forward, his tired head sagged to the hard floor, and this time the Aztec adventurer slept in peace—undisturbed.

CHAPTER IV

The Monster of the Valley

WHEN Gucuma awoke, his eyes were nearly blinded by light that was pouring down through the chasm. The gorge had opened!

With a joyous shout he sprang to the opening of the cave and gazed ahead along the narrow gorge. After a careful inspection of his weapons, he strode swiftly forward.

The walls of the gorge began to separate, he discovered he was climbing rapidly. Very soon he came to the end of the restricting pass, and a most glad-some sight met his eyes.

Directly ahead spread an immense valley with precipitous walls on two sides. In the bottom of the valley were great forests and a wide lake; its placid waters, of intense azure, seemed to reflect the jealous glory of the sky. It was the Valley of the Monster! He would slay the beast! Nothing mattered, now that the glorious sky was above him. Any thing that breathed or bled was not to be feared.

Caverns, dark and fearsome—mountains that moved and closed—were terrors; but here in the open, with green trees and a peaceful lake of water, Gucuma feared no enemy.

Chanting a weird Aztec marching song, he proceeded down a fertile slope, through a forest of incredibly tall trees. Gucuma observed that directly ahead a shaft or column of granite towered high. It appeared to be modeled by human hands, for rough steps or interstices were carved on one side. What strange cenotaph was this? Then the Aztec prince obeyed the age-old instinct of all Indians. Like a salamander, he climbed up the two-hundred-foot shaft to its very pinnacle. Indians have always climbed to high spots to survey their location. Gucuma stood at the very top. He could see over the tallest trees, and had just decided to return to the ground and proceed with his journey when a terrific commotion arose in the forest.

Gucuma saw one mighty tree crash to the ground, as some terrific force tore

it up by the roots. Some fearful monster lived among the trees!

"**T**HE Monster of the Valley!" shouted the prince from his lofty station on the pillar as a horrible creature lumbered into the clearing.

The gigantic reptile possessed a lizard-like body, fully two hundred feet in length. Unwieldy, scaly wings, with webs instead of feathers, were folded close to its stupendous, repulsive body. At the end of a grotesque, elongated neck was poised a terrific, ungainly head. Cruel, vicious eyes blazed out hate and anger. The reptile's rapidly moving body, like an avalanche, overwhelmed a great tree and crushed it to the ground, as a man might crush a twig under foot.

The stout-hearted Gucuma was alarmed, when the beast continued its smashing way directly towards the tall shaft of granite. He knew the lizard had located him, as the beast's eyes were directed straight toward him. Remembering his success with the Great Serpent of the Cave, he loosed a singing arrow at the right eye of the beast. The eye immediately became a pulpy mass that poured a thick, viscous fluid down the nose of the hideous creature. The beast began to tumble about in great agony, but it was not mortally wounded. The bones of its skull were so thick that even the swift arrow of the Aztec's powerful bow could not penetrate. Then Gucuma tried a shot at the beast's body, just back of its right foreleg; but he heard the arrow ricocheting, screaming off into the distance. The hard scales of the beast had deflected the speeding arrow.

The lizard was now swinging its head in great, jerking circles, and it was difficult for Gucuma to destroy its other eye. But with uncanny skill with his bow, he quickly reduced the orb to a hollow, loathsome socket.

For a moment Gucuma fancied he had defeated his enemy, but the beast continued its wild, agonized gyrations straight towards the monument. Its sense of smell was developed to a remarkable degree. It was hungry.

Gucuma began to cast about in his mind for a plan to slay the beast. It was evident that his bow was of no further use. The winged lizard reached the foot of the monument and reared upward, its terrific fanged mouth wide open.

The apex of the column upon which Gucuma stood was about twelve feet square. The whole structure trembled and swayed, as the mighty beast strained against the obelisk.

But it held! The ancients had built their masonry well!

The beast reared itself on its thick hind legs, grasped the column with its forelegs and stretched its fearsome neck and head toward the prince.

Gucuma felt his time to die had arrived. He knew that he could not clamber down the shaft, for then he would be at the lizard's mercy. His heart lightened a bit as he perceived that the groping, sightless head of the lizard could not quite reach him. The foul odor of its fetid breath was sickening.

A FURTHER careful survey convinced Gucuma that he was out of reach of the infuriated saurian. In the middle of the top of the shaft was a huge granite block.

With Aztec, stolid fortitude Gucuma seated himself on that block to think. There was nothing to do but wait. He could hear the lizard moving and struggling about, grunting and groaning.

The sun was disappearing behind the mountain; only a fragment of its yellow disc was visible. Gucuma gazed over the side at the reptile. It had now snuggled closer to the column and had

wrapped its front legs around the shaft where the steps were carved.

Something prompted Gucuma to look at the huge block of granite upon which he had been seated. He looked again over the side. The lizard heard his movements and again the repulsive head was stretched to within a few feet of his position. Gucuma leaped back, for the beast was now able to stretch its neck and body further. The great jaws were almost level with the top of the shaft.

Gucuma suddenly uttered a great shout; he had conceived a daring and startling idea. He sprang to the block of granite. He placed his precious weapons carefully upon the floor. Then, stooping low, he grasped the block and tugged with all his mighty strength.

Rigid muscles tensed and stood forth as though they would break through the smooth, brown hide. Gasps burst from his throat and perspiration streamed down his face, but gradually the great block of granite was raised to Gucuma's knees—to his waist—to his breast. Tortured lungs gasped in agony for precious air. Then above his head, as far as the sinewy arms could stretch, was balanced the heavy granite cube. As Atlas must have moved when he supported the heavens, Gucuma cautiously started forward—an inch at a time—towards the edge of the column. His legs and arms were trembling from the agony of the terrific strain. Then, with a loud cry Gucuma dashed the square of granite straight into the mouth of the prodigious reptile. The titanic beast gave out a hog-like grunt as the rock struck squarely.

The strong, fanged jaws were snapped shut and the granite block made a sickening sound as it thudded into the throat of the reptile. Gucuma had fallen to the floor, trembling and gasping for breath. The incredible lift had been a

terrific strain. The granite column shook and trembled as the beast tumbled about. Gucuma dragged himself to the edge. He could see the lizard twisting and rolling in mighty convulsions, trying to dislodge the stone.

GUCUMA laughed and screamed a challenge to the skies, for he knew his enemy was defeated. The granite cube securely fitted the mouth of the reptile and could not be dislodged. Fangs that curved inwardly held the rock securely within the ravenous mouth. The beast had now given up all thought of its breakfast, and soon its agonized rolling and tumbling brought it to the forest. There its heavy body tumbled about, tearing and smashing trees like an engine of destruction.

After a bit Gucuma climbed down the granite shaft and began again his journey. He did not even glance back toward the huge lizard, still struggling to dislodge the granite block. Gucuma grinned happily when he considered what easy prey the reptile would be for other hideous beasts.

CHAPTER V

The Crocodile of the River

SELENE, the Moon-Goddess, Mistress of the Stars, thrice flamed her silvery beacon, before Gucuma reached the edge of a sluggish river. At night he had slept in the crotch of some towering tree; fearsome nights, for the forests were inhabited by Brobdignagian monsters. Little streams of tepid water were abundant, inhabited by fish and low forms of aqueous life.

Weird beasts of incredible size, and Gargantuan, winged creatures swept close by over the trees, with wings clattering like dry bones. There was a considerable clearing of ground between

the forest and the river, where the bank stood about fifty feet high.

Gucuma sat on a rock and considered his next move. The river must be crossed. Apparently there was no way but to swim. He was making preparations to carry out this plan when his glance fell upon a disturbing sight in the middle of the river. Some mammoth beast was rising to the surface. It was fully two hundred feet long, and Gucuma saw that it was an immense alligator. Gucuma knew he could not cross the river without first slaying this monster. He wondered if the creature could travel on the land. He must not spend another night in the forest. Fortune had indeed so far favored him in escaping the myriad monsters that inhabited the forest.

With a wild shout, he seized part of a deer he had slain and cast it far from the cliff into the water. The saurian evidently was possessed of a super-sense of smell. Instantly, the water frothed, as its forelegs began to churn the water. Then the terrible tail dashed the water and spray on high as the immense cayman moved toward the meat. Its great, rounded eyes opened—likewise its terrific jaws. The quarter of deer disappeared like a flash down the horrible gullet.

Gucuma gazed fearlessly into the eyes of the reptile, that looked upward with baleful glare. The beast began to swim about faster and faster, keeping his eyes fixed upward. The tidbit of deer meat was only an appetizer for the alligator—a sop to Cerberus. In a daring, reckless mood, the Aztec tossed another quarter. He reflected that it might be possible to feed the beast to the point of satiation, and then swim the river without interference. Game was plentiful. He could slay and feed.

He started towards the forest to look for game, but stopped with a sudden jerk. No! He had promised Tepaux that he

would slay the beast but not feed it!

For an hour Gucuma sat trying to think of a plan. He glanced along the ground. There were many large, round boulders. Thoughtfully approaching one of them, he found to his surprise that it was composed of iron-like substance.

GUCUMA suddenly conceived a great idea. With a wild yell, he leaped to his feet and started for the forest. Soon a herd of large deer dashed by within two hundred feet. With unerring aim, Gucuma downed four of them as they leaped past. The bronze bow of Acolhx seemed to pour forth a veritable hail of flashing death.

Working madly Gucuma skinned the four animals. The fresh green, reeking hides he carefully laid out. Hastily cutting up some of the deer, he began to fling pieces of meat over the cliff. As soon as they would strike the water, the greedy alligator would gulp them eagerly. Gucuma was baiting his enemy!

After a time he ceased this feeding and began to gather an immense pile of dry faggots. Soon a roaring fire blazed high. Selecting one of the largest rocks, and using a stout limb as a fulcrum, Gucuma succeeded in rolling the round stone into the heart of the fire. Quickly gathering more faggots and piling them high on the brightly burning blaze, he sat back to watch and rest his sweating body. Ever and anon he would dash to the edge of the cliff and throw over a chunk of meat for the waiting alligator, whose appetite knew no limit.

When the fire had burned down to great, hot coals, Gucuma saw that the immense rock of ore was a glowing red. He swiftly cut one hide into thick strips and made a long, strong rope. Using a pole of green timber for a lever, Gucuma rolled the glowing boulder on one of the green hides. It sizzled and smoked and gave off a strong odor.

He knew that the green hides would shrink powerfully around the hot stone. But they must be wrapped around it before the mass cooled to secure the hides in place.

WORKING frantically, he rolled the glowing rock until all the hides were wrapped around it, making an immense ball. The last hide was wrapped around the ball with the hair inside, so that the deadly sphere showed bloody meat and white flesh. Gucuma wrapped the rope securely about this strange bundle and dragged it to the edge of the cliff. He quickly tossed the remaining hunks of fresh meat directly into the cruel, vicious mouth below.

Then with a great heave of his muscular body, he plunged the ball of hides, with the growing metal within, between the ready jaws. Gucuma laughed as he watched intently, for the great beast greedily gulped down the huge ball of hides. For a while the alligator lay peaceful and quiet.

Soon the beast began to writhe in convulsions. It bent its great body into a circle, as though trying to beat out its brains with its tail, or to regurgitate the terrible, burning metal. Gucuma, the Aztec, danced in glee as the struggles of the alligator became violent. Its agony was terrific, as it churned up the water in fury. The crocodile's life finally ebbed out, as its vital organs were destroyed before the large boulder cooled. The immense, gently wriggling body now rolled aimlessly, as it drifted down the slow stream.

Gucuma was soon astride a dry log, using a branch as a paddle, and, after a quick trip, stood safely on the opposite bank. He glanced back for a last look at the huge alligator, now nearly out of sight.

With all gratitude to his gods for his miraculous escapes, he proceeded rapidly on his journey.

CHAPTER VI

The Rattlesnakes of the Eight Deserts

AFTER two days of swift traveling, the country became open, the heat was intense, and Gucuma realized he was about to enter the Eight Deserts. He seemed to be traveling downward. Trees had entirely disappeared, giving place to bristling cacti and scrubby brush. Realizing that fearsome dangers of thirst and heat lay before him, Gucuma began to gather dry gourds that were quite plentiful. He rested at the last spring for three days, while he shot rabbits, drying the meat and using their hides to make coverings for the water gourds. Some skins were twisted cleverly into strong ropes.

One morning at early dawn, he started forth. During the day he would lie gasping under the tenuous shade of some giant cactus plant. Only at night could he make progress through the hot, yielding sand.

After a terrible journey that tried his rugged body, he came to a tall ridge of rocks that thrust themselves up through the sand. No sign of water or vegetation was in sight. Everything was so dry that it cracked—even his tough hide. When he had gained the summit of the rocks, he looked ahead. There, stretched out, were seven more of the small deserts, and seven more of the great projecting ridges of jagged rocks.

True, the deserts were short, but as his eyes glanced onward, it seemed to Gucuma that each one was more bleak and desolate. There was no fear in his heart as he clambered down the granite rocks and waded onward with slow, painful, dragging strides.

Gucuma's brain was feverish from suffering when he reached the Eighth Desert. He had met no living beast or fowl. Conserving every possible drop of water, he was now suffering in-

tensely. There was only one precious gourd of water left. Its contents were hot and putrid. He tried to talk to himself to relieve the agony of his mind, but his tongue was thick and protruding, his eyes swollen until nearly shut. Had he not been possessed of a stout heart and unyielding courage, he would have perished.

After what seemed an eternity he came to the middle of the Eighth Desert. Suddenly he saw a group of green trees ahead. He stopped and rubbed his eyes. His tired brain could hardly function, and he well knew the danger of mirages. He seemed to hear the gurgle of running water, while the sand rose in choking clouds, as if to mock him.

The oasis was real! In a tiny group of trees at the bottom of a depression, was a pool of water. Gucuma threw himself to the cool sand for rest.

His next act was to lift the precious gourd to his lips and drain the last drop. For hours he lay sleeping and resting, refreshing himself with dried rabbit meat.

After his brain had relaxed and his veins ceased to throb, he became conscious of a strange odor. It was oppressive—horrible—and gave him an uneasy feeling of danger. He went to the pool to fill his gourds and started back in surprise and horror. About the pool were the whitened bones of many animals, and the coiled vertebræ of thousands of snake skeletons. He threaded his way gingerly among the skeletons and lay down at the pool. He paused for a moment to gaze into the green depths of the water. Skeletons of snakes and animals gleamed from its depths. The very color of the water seemed malevolent and deadly. But that did not deter Gucuma. He knew he must drink and fill his gourds. In spite of the gruesome skeletons, the water looked tempting, and his throat

yearned for its cool drenching. He bent forward to lower his eager lips. As he did so, the voice of Tepaux seemed to vibrate in his ears.

BEWARE, Gucuma, my son." Gucuma jerked back with a sudden start.

"Poison spring!" he muttered, in a throaty, grating voice. "That accounts for all these skeletons."

Gucuma rose and cursed himself for his rash act of gulping all of the water remaining in the gourd. With his thirst only partially satisfied, he must face the remaining half of the Eighth Desert. Quickly reasoning, he decided he would bathe his body in the poison water and rest until night before pursuing his journey.

After many ablutions and a careful examination of his weapons, he lay on his back to sleep. He did not chew any more of the dried meat, for that would only add to the terrible thirst.

The vapor of a horrible odor attacked his nostrils, and Gucuma snapped to a sitting posture like a released spring. An instinct born of countless ages of desert perils told Gucuma the source of the retching smell.

Rattlesnakes! No creature or reptile possesses the strange and terrible odor of rattlesnakes.

The Aztec gasped in terror.

Down the steep sides of the sandy depression were slithering hundreds of repulsive, wriggling rattlesnakes. Gucuma was trapped! The water hole was at the bottom of a small cup-like hollow, and the snakes were flowing toward him from all sides like a mighty wave of death.

As a beaver slips into a protecting stream, Gucuma splashed into the green, loathsome pool. His bow, arrows and pouches were lying on a small rock. The

only weapon he held was his long, keen hunting knife.

The snakes seemed fascinated by the pool and gathered in a tangled, weaving mass on the very brink.

Knowing full well the snakes' fear of water, Gucuma felt safe from their fearsome fangs, as he stood up to his breast in the viscous liquid.

Round the pool the countless serpents slithered, fought and loved. The harsh, vibrating sound of their myriad rattles was a ghastly orchestration of death.

"A breeding place," reasoned Gucuma audibly, "for all the rattlesnakes of the desert. After the mating instinct is satisfied, they will depart."

ABOLD eight-foot warrior reached out his evil triangular head toward Gucuma. The scaly, muscular body coiled at the water's edge, balanced and stretched greedily. Gucuma's heavy, keen knife fairly sang as it circled in a vicious arc. The rattler was suddenly headless, and its threshing body spasmodically churned the water of the pool.

With an Aztec oath of disgust, Gucuma hurled the reptile's body to join its loathsome head—many feet away.

Fierce, twisting combats occurred constantly among the snakes, and Gucuma shuddered when he heard the sickening, thudding sound of cruel fangs striking quivering flesh.

After a time the snakes began to leave in undulating lines. The desert evening coolness had helped to dampen their amorous instincts.

Gucuma breathed with relief when the horrible love convention of snakes had departed, leaving the limp bodies of those who had perished in combat.

That night Gucuma was miles from the deadly waterhole. Somewhat refreshed, but desperately thirsty, his fine muscles and sinews pushed him

swiftly through the clinging, still hot sands. A weird, chanting Aztec marching song burst from his lips.

A wide-eyed desert night owl screeched in reply, but Gucuma did not heed. The owl screamed, that rodents, frightened at the eerie sound, would scutter for shelter—only to be seized by the winged night prowler.

Gucuma exulted. At times now the ground was firmer.

The last of the eight deserts! Every firm stride brought him nearer to Taloc.

CHAPTER VII

The Roc of the Mountains

WITH the breaking of dawn, a tired Gucuma stood on a high layer of broken granite that encompassed the eighth desert. He lay and rested—hunger sated from meat—thirst slacked with brackish water, found in a deep hole in the granite floor. It had rained recently; water had drained to that natural cistern.

A low, dense fog drifted close and stifling. Gucuma decided to wait till the sun "melted" the mist before he proceeded. Relaxing and resting, he finally slept. Burning rays of the sun awakened him. The fog was gone.

Towering majestically to the sides were mighty mountains. Formidable, steep and high they reached upward with snow-white pinnacles.

For the moment overcome and awed, Gucuma stood impressed at their magnitude and grandeur.

"The Eight Immense Hills!" he cried.

With a grim expression, Gucuma began the steep ascent. Game and water became plentiful as days of scrambling, toiling ascent passed—gruellingly hard.

* * * * *

Days later Gucuma was nearly across the gigantic mountain range. Seven

giant crags had been painfully conquered.

Like a salamander the Aztec adventurer had crawled and inched up precipitous slopes. Sturdy fingers and bare toes had strained tenaciously along narrow ledges.

But now, after days of mighty effort and sinew-stretching toll, it seemed he was defeated. The last mountain of the eight pinnacles had suddenly left off abruptly, with a sheer mighty precipice.

There was no way down!

Gucuma glanced below. It was a fearful drop to a valley of trees and streams. The mighty wall towered smooth and straight—a mile high. He had searched vainly for a path—even for footholds. But there were none.

"Perhaps," he muttered, "I can retrace my journey across the eight pinnacles and skirt the mountains to find a lower path."

He shuddered at the very thought of the dangerous return trip. He arose and began to look for food. Game had been scarce as he neared the snow line. After a time he came to a high, narrow crevice. At the top of the crack was an immense pile of sticks and moss. "A rat's nest," reflected Gucuma, greedily, his gnawing hunger now knew no niceties; rat meat is nourishing.

Climbing like a monkey, Gucuma scrambled up the chimney-like crevice and soon stood on a shelf above the pile of brush. He shouted with happiness as he stared into the rounded tangle of sticks and moss.

"An eagle's nest!" he shouted, gazing hungrily at two immense white eggs that reposed in the crater-like nest. Then he stopped, astounded. Such eggs! Fully two feet across! What incredibly large bird existed to lay such prodigious eggs?

Urged by his gnawing hunger, Gucuma was quickly in the nest, working at

one egg with his knife. In a trice Gucuma's lips were at the egg, sucking greedily. The contents were strong and fish-like in taste, but soon Gucuma sat back, belly filled.

He decided to carry the undamaged egg to the edge of the precipice, when a great shadow flashed across the nest. Gucuma glanced upward, and his sturdy heart nearly missed a beat.

A MIGHTY bird, fully fifty feet across the wings, was hovering directly overhead, pulsating wings beating the air with swishing, deafening sounds!

The huge bird swooped down, screaming with rage, its strong, frightful beak agape. It was well for Gucuma that he was lithe—as quick as the mountain cougar. His brown body darted like a flash into the protecting rock chimney.

The great bird's curved beak snapped as it almost grazed his muscular back. Gucuma, safely crouched within the narrow slot, laughed scornfully as the bird banked into a turn. It tried vainly to reach its prey, but the opening would not admit its large body. The huge bird seemed to possess a reasoning brain. It settled to a perch close by and sat there, cruel, green eyes fixed on Gucuma.

Gucuma did not possess the patience of the giant bird. He wedged his body sideways that he might use his powerful, bronze bow. There was not room to use that deadly weapon. Then, too, his supply of arrows was numbered. He must retain all possible arrows for Taloc.

Then Gucuma's eye fell upon a strong club at his feet. He picked it up, as a sudden anger blazed in his brave heart. He—Gucuma—who had slain monsters, detained by a bird! Grasping the club and shouting an Aztec battle cry, he stepped boldly from the crack to meet the bird in mortal combat.

The bird instantly accepted the challenge and darted toward the Aztec with

a horrible scream. Gucuma waited coolly, while his strong arms swung the club with incredible force.

Crash!

The angry Roc had thrust out its beak, and the club met its head with a terrific impact! Instantly the huge bird collapsed and fell to the shelf of the precipice, where it lay, stunned—inert.

A plan so daring that it fairly startled him, burst into Gucuma's consciousness. He leaped down to the strange bird. Working quickly, Gucuma drew from his belt several stout deer-skin thongs.

In a few seconds the mandibles of the bird's strong beak were securely tied together. It was securely muzzled, and to be certain, Gucuma wound and knotted another length of buckskin thong and quickly knotted it with a loop around the neck, so that the thongs on its beak could not slip.

Leaping to the bird's great feet and talons, he drew out his keen knife. It required but a moment for skillful, strong hands to amputate each long, curved talon from the bird's feet.

After a short wait the bird began to jerk spasmodically, and suddenly scrambled to its bleeding feet, while Gucuma crouched beneath it like a chick under the protecting wings of a mother hen. The immense bird spread its vast wings to fly.

GUCUMA did the most courageous and desperate thing of an adventurous life. He seized each bony ankle of the bird, and with a mighty heave, threw himself over the edge of the precipice. The Roc, bewildered at this strange attack and still numbed in its small brain from the blow, was jerked violently over the edge. Together, man and bird fell into space—spinning and turning grotesquely.

Tenaciously hanging on with desperate grip, Gucuma glanced below. The green

trees of the valley were rushing upward. The bird began to struggle violently. Its great wings stretched out and began to beat the air.

The rapid descent was checked, and Gucuma felt that the bird was supporting him—in spite of his weight. The Roc began to realize that it was carrying an unwelcome passenger. It leaned over to strike Gucuma with its strong beak, but each time it would lose many feet in altitude from the manoeuvre. Then, it tried to beat Gucuma with its heavy, boned wings, but each time Gucuma would draw himself up closer against the bird's body. Gucuma's hands were becoming cramped from the strain of holding to the bird's ankles. The slippery blood from the amputated talons caused his hold to be precarious.

It required all of the Aztec's great courage and fortitude to maintain his vice-like grip. Gradually, the bird began to weaken, and it was not long until the exhausted Roc settled down on a high, grassy mound. The two—man and bird—crashed with considerable force, and Gucuma was stunned for a second from the impact.

Like an acrobat, he rolled away. The bird was floundering about, trying to pick at its bleeding feet with its muzzled beak. Out of pity, Gucuma loosed a hissing shaft, that mercifully ended the bird's existence.

CHAPTER VIII

The Mighty Winds

GUCUMA, dozing by his campfire that night, was happy with the thought of but one peril to overcome. His brightly burning fire was placed directly against a large outcropping of strange black rock.

The pleasant warm glow of the fire and a full stomach caused Gucuma to nod. He was tired. He slept.

A terrific heat suddenly snapped him to his feet—alert. He rubbed his eyes in amazement as he leaped away from the heat.

The entire ledge of black rock was burning! Rock that burnt!

Gucuma camped at a safer distance. The next morning he placed a number of the black stones in his pouch. He noticed they soiled his hands black.

* * * * *

Gucuma traveled across a pleasant valley—forests—green pastures and running brooks, feasting grandly on the finest of game and fish.

He became conscious of a loud, roaring, rushing sound ahead; it became louder in volume. A high wind of considerable velocity now blew strongly at all times. Directly ahead was a mighty cut or gorge running at right angles with the long, narrow valley he had traversed.

The walls and floor of this gorge were worn smooth, except in places where great caverns and ledges were deeply carved.

"The Windy Plain!" shouted Gucoma at the top of his voice. He did not hear his own words. They were jerked from his lips by the terrific wind. Looking anxiously through the swirling dust storm that eddied and flowed in the gorge, he could see trees and large objects carried like straws in the vast wind-tunnel. He knew that he would be swept from his feet and dashed along like a feather in that mighty gale that roared so viciously.

Gucuma crouched behind a protecting boulder that afforded but poor shelter and tried to think of a plan. His searching glance noted several large boulders that did not seem to be affected by the winds. Selecting two rocks of about two hundred-weight each, he tied his precious rawhide ropes around each.

Then he grasped each heavy rock by the ropes and staggered into the howling blasts.

ALMOST blinded by flying gravel, cut by shrieking missiles, Gucoma staggered onward. At times he was violently thrown to the ground, but was prevented from flying into space by his hold on the heavy rocks.

After what seemed eons of pain and hardship, Gucoma caught a glance through his streaming eyes, of the opposite wall. With renewed hope, he fought harder. The strong heart and limbs of Gucoma were sorely pressed, and his body was bleeding in many places when he finally dragged the heavy boulders into a narrow pass. The going was easier now, and after a few hundred feet, he found shelter and later a protecting cave.

Like a wounded animal, he nursed his wounds, and inspected his weapons. Before falling into a profound sleep, he gave thanks to his Aztec gods for his miraculous conquering of the Perils.

Soon he would be in Quiches. He reflected sleepily at the pleasant thought of his brown fingers clutching the throat of Taloc.

Gucuma slept.

CHAPTER IX

Taloo and Najoe

IN one week Gucoma, proud and defiant, stood at the gates of the mighty city, Nahuatl. The sentries at the massive gates were greatly amazed when Gucoma imperiously demanded admittance.

"I am Prince Gucoma! I demand audience with Taloc at once!" he shot out in impatient tones.

The trained guard of twelve men started forward, arrows fitted to taut bowstrings.

"Do not advance!" shouted Gucuma. "I will kill!"

The chief of the guards signalled his men to stop their advance.

"Bold stranger!" he demanded, "Why do you visit our city? We will take you as prisoner to Taloc, our Prince, the mighty one who rules."

"I am ready to meet your Taloc," sneered Gucuma. "I demand to be taken to him at once."

Without further words, the astounded guards formed about Gucuma and escorted him to the palace.

Taloc was seated on his throne, surrounded by his courtiers and attendants, when Gucuma was led before him. Taloc had many worries on his mind. He had shed much useless blood among his subjects; sacrificed many virgins. His people were becoming restless. There was a growing undercurrent of mutiny. And now here was a bold stranger who had impressed his trusted guards.

"Bring him closer!" bellowed Taloc. "I desire to question this audacious one before having him killed in the arena."

Gucuma advanced bravely and confidently.

"I, Taloc, am Gucuma. I have come to kill you and to take my kingdom that you so treacherously stole."

For a moment the proud and haughty Taloc was nonplussed.

"Prince Gucuma, from the far land of Tollan!" he gasped. "How did you survive the Seven Perils?"

"Never mind, Taloc, stealer of women and weaver of lies. I am here, and I have come to kill you!"

Gucuma knew well the Aztec traditions. "Bring forth your greatest medicine man!" he shouted. "I will defeat him in any test. Then I demand the right to meet you in combat. This I demand by the Six Sacred Aloe Leaves."

Taloc paled at the words. He knew full well the Aztec tradition—that a

prince must rule by right of might, and meet in mortal combat any challenging prince. The only requisite of the challenger was that he be of royal blood. Taloc bent in hasty consultation with his counsellors, who advised the tyrant to accept the challenge. They knew well the rage of the impatient people should Taloc fail to meet the strange prince.

Finally Taloc spoke in a sneering voice. "Very well, Gucuma. You wish to meet me in combat. But I shall choose the weapons, according to custom. If you are victor, you shall be prince. But you will not prevail, for I will overcome you. Why, my daring Gucuma, you will not survive the meeting with my greatest medicine man!"

"A COWARD'S words!" responded Gucuma. "Send for your medicine man, then oil your body and prepare to meet me."

The moment was made more tense and dramatic as a dark, beautiful girl dashed from a near-by doorway to the side of Gucuma.

"Gucuma, the prince! You have come!" she cried with joy, clinging to his arm.

"You are Najoe," said Gucuma simply.

* * * * *

Gucuma, well trained in the mystic arts, understood the feats of legerdemain the medicine man performed. That withered old fakir, clad in a strange garment of bones and snake-skins, was the greatest of the tribe. But Gucuma smiled at the tricks performed by the medicine man, whose evil eyes gleamed with triumph. After the crafty, wizened, old Aztec magician performed a few tricks, to the great wonderment of the assembled multitude and the smug delight of Taloc, Gucuma uttered a shout of derision.

"Why Taloc! Have you no medicine man to perform a worthy miracle? This is a weakling you have sent."

The medicine man snarled with rage at the insult. His withered hand flashed under his repulsive gown and jerked forth an immense, wriggling rattlesnake.

The medicine man spoke strange words to the snake as it coiled on the ground. The snake suddenly reared its head toward Gucuma and shot forward with swift, coiling movements, vicious head ready to strike death.

Gucuma did not flee from the fanged terror. He knew that the snake's deadly fangs had been removed. With a houl of derision Gucuma's quick hand flashed down and seized the snake by its tail. With a strange movement he snapped the long body of the serpent in a whistling circle. Then, whip-like, Gucuma's arm flashed back.

Snap! The vicious head of the snake flew high in the air, and Gucuma hurled the writhing, headless body at the medicine man's feet.

Then the crafty mind of Gucuma planned a clever trap for the magician. He raised his voice that the entire multitude might hear.

"Bring dry sticks!" he shouted. "I, Gucuma, will make fire of stones. Then let this weak old man try to do the same!"

A LOOK of eagerness came into the old fakir's eyes. He felt sure that he could defeat Gucuma at this test. The sun was blazing high overhead. The medicine man drew from underneath the folds of his reeking, filthy garments a piece of glass-like quartz, that he had spent many months grinding and polishing. With this crude lens, he could concentrate the rays of the sun and make fire more rapidly than the age-old method of whirling a stick against a block of fibrous wood. To this lens

of quartz he owed his supreme importance as master magician of the tribe.

The fagots were brought by eager hands. Cleverly the medicine man arranged them and placed in the center a handful of dry, fibrous bark. Then he began a weird, leaping dance, all the while screaming and frothing at the mouth. Finally he hovered over the bundle of sticks holding the lense that the rays of the sun concentrated upon the fibre. The fibre burst into a blaze, and the fagots began to burn merrily. Taloc shouted in triumph.

"Now, Gucuma, let us see you build your boasted fire of stones."

Gucuma dramatically took from his pouch the black stones he had brought. Holding them aloft he cried.

"See, people of Quiches. These are stones. My magic is great. The stones will burn."

The people gathered close in spite of Taloc's guards, as Gucuma carefully arranged the lumps of coal on the fire. After cleverly waiting a few minutes, he pulled away the burning sticks, leaving the coal in a neat pile that began to burn brightly.

A mighty shout of wonder swelled crescendo from the people.

"The visiting prince is a god! Stones burn for him. Taloc must meet him in combat. To the arena!"

CHAPTER X

The Combat

THE ancient Aztec arena rang with the excited voices of the people. The entire tribe was gathered. At last a gallant prince had appeared to dispute the right of the evil Taloc.

They had witnessed Gucuma's victory over the medicine man. They were elated—excited.

In that immense arena many a brave gladiator had perished. Taloc, with a

worried frown on his dark, sensuous face, sat in the ornate box reserved for his royal person. He was closely attended by fawning counsellors.

Gucuma was waiting in the center of the arena. Alone he stood—defiant and unafraid, clutching a heavy war club.

The shrewd Taloc had chosen bronze war clubs for weapons. A mighty frame of muscle and sinew was Taloc, and he had cleverly chosen a weapon with which he was greatly skilled and which he was very powerful in wielding.

Impatient shouts of derision and taunting insults were hurled by the anxious multitude toward the royal box of Taloc. That dignitary knew he must not delay. He signalled, and a loud trumpet blast rang out.

Taloc arose, threw his robe aside and strode grandly down the aisle to the arena. He grasped more firmly his club and advanced toward his challenger.

With a sneer on his dark face, Gu-
cuma waited for Taloc to approach. Herculean though Gu-
cuma was, yet the prodigious body of Taloc towered well above him, but Taloc was somewhat fat and ill-conditioned.

Clang! Taloc tried a vicious swing, but Gu-
cuma's watchful club neatly warded the blow. Venting the anger and determination of months of mental torture and hardships, Gu-
cuma became a fiend—a fiend vested with a marvelous skill.

Glad shouts came from the multitude as the challenger parried each stroke. The club which Gu-
cuma wielded weighed many pounds, but the spectators gasped with wonder to see Gu-
cuma swish it through the air like a dry mustard stalk.

Gucuma was winning!

Gasping and sweating, Taloc fought furiously, but he could not strike his dancing, weaving, dodging enemy.

Suddenly Gu-
cuma swung so mightily that eyes could not follow his metal weapon. There was a loud crash, and Taloc's club was dashed from his grasp.

"Kill, Gu-
cuma, kill!"

Gucuma advanced on his weaponless enemy.

"Now, treacherous Taloc, you will die!"

Then Gu-
cuma did a strange and courageous thing—an act that endeared him forever to the hearts of the Aztec people. He snapped his club aside and grappled barehanded with Taloc.

There was a tangle of two straining, powerful bodies. They crashed to earth. The two figures rose, but one was being slowly borne aloft by the other.

GASPING and sobbing with an effort, Gu-
cuma stood like a bronze statue, holding aloft the struggling body of Taloc. Holding Taloc in that position, Gu-
cuma walked slowly across the arena and paused at the stone wall. Taloc struggled frantically, but his throat was squeezed small by his victor's right hand.

Gucuma snapped his powerful body, and Taloc was hurled as from a catapult against the wall. His body crunched sickeningly on the stones.

Gucuma stood for a moment and then sank to the earth. He could feel himself slipping into unconsciousness, but the soft arms of Najoe were holding his head and crooning like a mother to her babe.

Gucuma struggled to his feet, arm encircling Najoe. His glance fell upon the multitude that crowded close. There was the look of a king in Gu-
cuma's eyes as his voice thundered.

"People of Quiches, I, Prince Gu-
cuma, and Princess Najoe will rule you wisely and well."

Who Deserves Credit?

By
BOB
OLSEN



I

When EXPLORATION blazed through space
The first sky-trail to far-flung stars,
And found men, sapient, on Mars,
He gained renown's most honored place.
Protested he: "I must confess
I owe a debt to him who wrought
The ship in which my goal I sought.
INVENTION helped me win successa."

II

Enlightened thus, the world acclaimed
INVENTION, who in turn declared:
"My credit also must be shared.
This great idea first was framed
Within a science-fiction story.
It taught me how, in full detail,
To build a craft that *could* not fail.
IMAGINATION, earned its glory.

III

IMAGINATION then was crowned
With wreath of laurel; but he too
Avowed that credit most was due
To still another, who had found
A motive force that bid defiance
To shackle-chains of gravity.
"Thus was my brain-child born," said he,
"Conceived and nurtured well by SCIENCE.

IV

To SCIENCE then the heralds sped.
They raised him up before the crowd,
And sang his praises long and loud.
"I seek not fame nor gold," he said.
"Tis meet you give your acclamation
To one to whom the praise is due.
His name I now shall tell to you—

Observe it well: COOPERATION."

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Island of White Mice

By DAVID H. KELLER, M.D.

This is a narration in Dr. Keller's best vein. The author's many years of professional work in the realm of psychology gives the touch of authenticity to it. It is a study of human character under what may be termed difficult circumstances, and will be found an entertaining, almost cynical story of weak human nature, but the author's good humor pretty well disposes of any such aspect.

"HELLO, Taine."
 "Hello, Chief."
 "How's business?"
 "Fine. Started to spend ten thousand last week on a ten-cent income. That is why I came to Washington at once when I received your wire. Thought that when the Chief of the United States Secret Service needed me, there might be some money in it. I need some."

"What did you spend the ten grands for?"

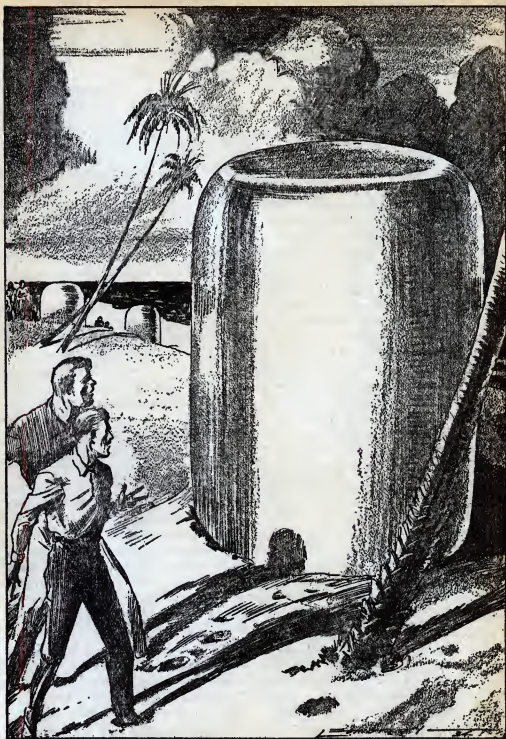
"Personal curiosity. Want to know about it?"

"Certainly."

"I was at home and not doing a thing. After supper I told the wife I was going to take the little black puppy out walking. Perhaps you don't know about the black puppies? I certainly like a dog when he is growing up. He has a habit of sticking his nose into things that do not concern him, and, as a result, he gets into all kinds of trouble. After he becomes a real dog he learns to tend to his own business. I sometimes feel that I am still a puppy, never grew up, always meddling in things that I have no business to; so, naturally, I am fond of puppies; feel that I have a good deal in common with them. Great resemblance! In fact, I was told once that

I looked like a dog; not any special kind of a dog, just a mongrel. So, just as soon as I think I am going to have a vacation, I go to a pet store and buy a pup and start in teaching him something. So far I have never kept one. Just as soon as he shows any intelligence I give him away. Gives me an inferiority complex, associating with a dog that shows intelligence.

"So, this night I was walking down to the drug store, and some men said, 'Boy, can you tell me where Mr. Taine lives?' I showed them the house, and when I came back from the drug store there they were in the parlor, talking to my wife, and she was telling them what a great detective I was. You know how women are about their husbands. Guess I had better make it short. These men wanted the Grand Lama investigated. Something to do with oil lands in the Far East, and would I go over and spend a year there and make a personal report? I said that it did not appeal to me, but the more I said no, the more insistent they were and they finally offered me five thousand a month and expenses and a contract for a year, and there was the wife figuring what she could do with the ten per cent to help her missionary society, so I finally said I would take it. They gave me



The two Americans walked up to the central building. They looked at it and felt the glass walls. Suddenly they paused as a voice spoke to them.

ten thousand in advance, and they had a ticket for the next steamer to China, and I was to leave in forty-eight hours.

"I had a hunch. You know! Psychic stuff; so I excused myself to make a drink for them in the kitchen, and I got four of the boys busy, fellows that were good workers but on their uppers. They were outside the house when the customers left. I started to pack my suit case, and two weeks ago I took the boat to China, and at present I am on the high seas."

"And also at Washington?"

"Looks like it. You see, there is a young man in San Francisco, who has done some work with me. He says that some day I am going to die of old age or poison or something and he wants to know how I do what I do. I told him that, if he ever wanted to be a detective, he had better develop a style of his own, but he thought my style was good enough for him. So I told him here was his chance to be Taine for a year and see how he liked it; and, sure enough, he said good-bye to the three men at the dock and took their sealed instructions. I was the taxi-cab driver who took him to the dock, and the boy did a fair job, so far. I had a hard time being unconcerned when they offered him a cigarette and he told them that he never smoked, and that it was bad for the enamel of his teeth. He even fooled the wife when he left my house, and anyone who fools my wife is going some. So I just lost myself in San Francisco and waited for the break."

"WHAT break?"

"I thought you got it. Why should anyone want me to be in the Far East, out of touch with the world for a year? And pay me for it? Simply because he did not want me in the United States. Those men are up to

something, and they said to themselves: 'If trouble starts, we will be a lot safer if Taine of San Francisco is out of the picture.'"

The Chief laughed.

"I see you are still the same old conceited Taine."

"I suppose so, but you have to admit that I have my reasons. Now, these three men who hired me to go to China were just three ordinary plain-clothes men from Boston. Just as soon as they left the house I had them shadowed. Before I came away from San Francisco I received the full report. They were simply paid to come out there and get me to take the job. They were good men from a fairly good agency, and I do not think they knew what it was all about; just paid to do a job, and they did it. Up to this moment I do not know who paid them for their work. When I find that out, there is bound to be some interesting development. That is why I sent you the new address. I thought to myself that you would be the first to hear of any new form of deviltry, and that, when you heard it, your first thought would be to send for me. Meantime, I kept on living at home."

"I thought you said your wife saw you off at the dock?"

"She did, and she was as surprised as could be, when my first cousin came to visit me from Hoboken. She did not know I even had a first cousin. I did not make much of an impression on any of the family, especially the daughters. You see, I had a twitching of the left arm, and the way I spilled the food was really too bad. They were nice to me, but I bet they were glad to see me leave. It was one of the high spots in my career as an impersonator. When a man can live with his own family for ten days, and not be recognized, he is rather clever. Try it some time, Chief."

"No. I am not good enough. Let's get down to work, Taine. You know my men are always on the lookout for the unusual. Anything they do not understand, they send to me, especially news items. I look them over and file them. Have my own system. Once in a while something clicks in my brain and I take a folder out and rearrange it. I did that the other day and that is why I sent for you. Do you know of a man by the name of Julius Weisman?"

"No!"

"HE is a psychologist, a student of human behavior, and he is not connected with any university. Get that? One of the big men in his field and nobody wants him to teach. A year ago he nearly caused a riot in New York. Went around one night in Columbus Circle, showing people one hundred dollar bills and asking what they would do if they had one. Of course, the people, who told him, thought he would give them one, and when they found out he was just experimenting with them, they got sore at him. There was a piece in the papers about it, and after that I worked out his history. Not much of interest in it, but in his English home he collects books about desert islands. I guess he has everything that has ever been written on the subject."

"Just a hobby," commented Taine. "Lots of men have hobbies."

"No doubt. I never went further with that one than to read 'Robinson Crusoe' when I was a kid. Now, here is something else. One of my men has been wandering around Germany, and he heard about Carl Ludwig. He is the man who spent several years in a cage in Africa, studying the monkey language. He is having some glass cages built, shaped like big Mason preserve jars, the same shape as the women use

to preserve fruit in. He says that he is going to use them in his future monkey study."

"I think I have heard of him," said Taine. "But I don't see the glass part. Now wire cages are something different. You can hear a monkey jabber through a wire cage, but, if you were inside a glass one, all you could do would be to see him."

"That is true. Now, suppose I told you that Carl Ludwig and Julius Weisman are very intimate with each other, that they have a great deal in common. Would that mean anything?"

"No. No more than that you and I have a great deal in common."

"And you cannot tie in the desert island library?"

"Not unless there would be some monkeys there."

"I suppose there might be. Now, one thing more. An unknown philanthropist has offered to take two dozen college graduates on a trip around the world, all expenses paid, absolutely no conditions except a diploma. He wants twelve men and twelve women. The president of one of the big universities came to see me about it, wanted to know where the catch was. His idea was that no one was giving anything away for nothing. I found out that the man back of it is Weisman."

"That is certainly kind of him," sighed Taine. "I wonder if I could get my youngest daughter included?"

"Might be possible. But remember about the night in Columbus Circle, when he talked about giving hundred dollar bills away? Same man."

"I suppose so. Looks like a hash. Must be a catch in it somewhere."

"Got any ideas, Taine?"

"Sure! I always have those things."

"Want the job?"

"Perhaps. Is this what you sent for me to investigate?"

"YES. And it is trick stuff. Suppose the thing is on the level? It may be, for all we know. Just the fact that Weisman wants to give some of our young people a trip like that is no reason why we should go ahead and arrest him. Even if we think it is crooked, that is no excuse for our officially giving his philanthropy a black eye. On the other hand, if we have an idea that it is off color and keep quiet and anything happens, the Secret Service will get 'Helen Everything' for not protecting our citizens."

"What are you going to do about it?"

"I have done it. I told the university man that he should keep quiet about his suspicions and that nothing would happen to the graduates who finally took the trip. And then, after I had made that boast, I remembered that it was just that, just a boast, and sent for you. I want you to go along as one of the graduates."

"No!" cried Taine. "Put that in large letters. It is a word of two letters, starting with N and ending with O, and it means negation. I am willing to impersonate anything, but I have my limitations. Even at my best I could never take the part of a college graduate and get away with it. Now, if it were a deaf and dumb nigger or even a cousin of mine with a twitch, I would try it, but not a college graduate. I don't know enough!"

"How much would you have to know?"

"Everything."

"You have to do something! I am depending on you!"

"I will get busy, Chief. When do these young people leave?"

"In about two months."

"Give me that file, and I am on my way."

"Where can I reach you?"

"I do not know. But I will keep in touch with you."

"It is a big order for one man."

"The bigger the better when it comes to Taine of San Francisco. I tell you what I want you to do. Get word to your force in China. I want you to do this for me. Have Taine's arrival put in the papers and have him murdered. Get the idea? Kill him. Then have him rush back to the States and arrange to have him go as one of the graduates. There may be a time when these people will want to get hold of Taine, and if they do, they will be satisfied. What do you think of it? Not so good, is it? Too many people would have to be in on it. Would worry my wife to think I was dead. She would not know how to spend my life insurance. Better let him go on with the plan as they worked it out. After all, perhaps it is somebody else who wants me in China for the next year. Just conceit on my part. I do not know Weisman, and there is no reason why he should know me. Perhaps the people who sent me to China are on the level."

The Chief looked at Taine for some minutes without answering, and then there was a tone of uncertainty in his voice:

"I wish I knew what was in the back of your head, Taine. There is one thing I do know, and that is that you are best when you are playing the part of a lone wolf. I sit here in this office, wearing out the leather chair, and at times I wish I were you, but all I have done for a dozen years is hand hard assignments to you, things that would stump an ordinary operator, and you, somehow, hit the bull's-eye every time, and then come back and tell me about it with as much unconcern as though you did that sort of thing every day. Take the folder and go. But take care of those children!"

"Sure thing, Chief. See you later."

Taine disappeared. The Chief was not worried about the fact. Taine had disappeared before. For a month there was not a single new fact about Weisman, Ludwig, or Taine. Then news began to drift in, nothing very startling and nothing at all in regard to the San Francisco detective. The Chief learned that Ludwig was preparing to sail for New York. On the same day his operators told him that Weisman had bought a ticket for Hamburg. Meantime, the plans for the post-graduate trip around the world were rapidly developing. The twenty-four fortunate, young people were finally selected and notified. Then Weisman canceled his sailing while Ludwig left for New York.

When least expected the news broke, and what news!

WEISMAN had gone to London under an assumed name. He had met Ludwig in London. The two men had quarreled. The difference of opinion had reached its climax in a barroom. Threats had been exchanged, heard by the barmaid. The fight had reached its climax on a wharf, witnessed by an officer who saw the two men clinch and fall into the river. Though the bodies were not found, there was no doubt that both men had been drowned. That was front page news. Weisman's will was found.

He was the philanthropist who had financed the proposed post-graduate trip. It was all in his will! Whether he had felt nervous about his meeting with Ludwig, whether it was simply a premonition of his death which had worried him, he had made all arrangements for his present to the young Americans to go on as arranged for, irrespective of what happened to him. They were to have their trip around the world, and nothing was to prevent

it. Sufficient funds were provided for all expenses.

The Chief of the United States Secret Service read the various news items with interest. He read them forward and backward and then carefully started a new file. After that he put his feet up on his desk and sat for fifteen minutes, wondering how many kinds of a fool he had made of himself and whether Taine was as big a one as he was. At last he sent a letter to the university president, assuring him that the last reason for worry about the globe-trotting trip was at an end and that, as far as he was concerned, he was ready to say that it was O. K. in every particular, and it was too bad that they had misjudged a good man like Weisman.

THE *South Seas* was a small steamer, but entirely adequate for a trip around the world. When it left New York it had a full crew, and a passenger list of twelve young men and as many young women, all recent graduates of American colleges, carefully looked after by Professor Kindard and his wife. They were old enough to be wise and young enough to be kindly sympathetic to their charges. It was their secret desire that the trip would end in at least some engagements. They were given a spectacular farewell by fond parents and friends as the boat left the dock. For twenty-four hours before sailing time the Chief of the Secret Service and three of his operators had searched the ship from top to bottom for Taine. At last they gave it up in despair.

"If he is there," admitted the Chief, sullenly, "he is disguised as a cockroach. That is the trouble with that man. He starts something and he becomes so enthusiastic about it that he forgets everything else. I bet if he

decided to impersonate the part of an old idiot, he would forget to read the newspapers. Right now I feel that he is so anxious to know what Weisman is doing, that he does not even know he is dead. At the same time, he never has failed to go through with a case to the ending. Yet, this one is ended and he does not even know it."

His assistant, who thought he at least knew the traditional Taine, was willing to agree with his Chief, but suggested that some effort be made to learn about him through his wife. But that suggestion did not meet with approval from the Head of the Service.

The *South Seas* arrived at London, appeared for a few days in Hamburg, paused long enough in Bordeaux to allow the tourists to visit Paris, then made her way slowly through the Mediterranean, and finally went through Suez. Day by day the Chief marked her position on a map of the world. At last the steamer headed for Australia. Then more news broke. There was an SOS. A storm, a broken rudder, water in the engine room. SOS again and again, and at last silence.

"I knew it," sighed the Chief. "I just felt that something like this would happen. It had to happen. I only wish I knew just what did happen. Of course there have been storms at sea before, with all the passengers lost. But just why did it have to happen with this ship? There is something for Taine to answer."

He went to his files, took a folder out, wrote "The End" on the outside, and tried to forget it.

In some way he felt that he was the cause of all those young people being lost at sea. For several nights he could not sleep, because of their white faces with seaweed in their hair and gulls flying lower and lower over them.

THERE had been a storm at sea. Perhaps not a very serious one, but, to the twenty-six landlubbers, it appeared to be a hard one. There was no doubt about the Captain being worried. The next day he was more worried. That evening, just before sunset, land was sighted. To the horror of Professor Kindard, the Captain announced that it would be necessary to put them on shore.

"The ship may go under at any time," the Captain said, "and, since we can put you and the rest of the passengers on shore in an hour, I think that would be the best thing to do. I may be able to fix the engines and stop the leak. If I do, we can pick you up tomorrow. But if you are on shore and the ship does go under, I won't have your lives on my conscience, and you know how a Captain feels about his passengers. I do not want anything to happen to any of you. So, you tell the young people to put a few clothes in their suitcases and be ready in ten minutes, because, at the rate this ship is taking water, there is no time to be lost."

"But where are we, Captain? Have you any idea where we are?" asked the astonished Professor.

"That is the least of my worries. It is land, Professor. Land with trees on it, and a mountain, or something that looks like one, and it is a thousand times better for you to be there than on a sinking ship."

An hour later the twenty-six Americans were walking up from the wet beach to dry sand. The boats which had carried them were going back to the steamer.

"And that is the end of those guys," said the Captain, with a curse, as he turned to the mate. "You had better get steam up and start pumping the water out of the hold. Tomorrow we will have the ship painted and give her

a new name, and I guess the cash we got for the job makes it worth while."

"It was a crooked piece of work, Captain, no matter what we got from it. Of course, we have the man's promise that nothing would happen to them, but what is the promise worth after he is dead?"

"That is the best part of it. Dead or alive, we get our money, and, with him dead, who is going to blah-blah about it. I know the crew. I hand picked them from the gutters of the world, and every man knows I know so much about him, that he is willing to keep quiet to have me keep quiet. We may be a lot of scum, but scum sort of sticks together, perhaps because it has nothing else to stick to."

The Americans were tired, worried, exhausted from the loss of sleep during the storm. They slept soundly under the tropical heavens. When they awoke, they did not waste a minute rousing the Professor and telling him the news.

"The steamer has sunk!" they cried.

The Professor looked out to sea. He shut his eyes, shook his head, opened his eyes and again looked out to sea. Then he took the oldest of the graduates, a blond giant from North Dakota, to one side.

"Olsen," he whispered, as he supported himself with a hand on the giant's shoulder. "This is bad. It is so bad that I do not know how bad it is. The boys are saying that the ship has sunk. I think that the correct statement would be that we cannot see the steamer. That does not mean anything in particular, or it may mean any of a dozen things. All I know now is that we are on land and the Captain did not tell me where it was, or what it was. I do not think that the ship sank during the night. If it had, the crew would have come ashore, in some way."

"Are you thinking what I am thinking?" asked the big man.

"I am. At least, I think I am. Perhaps we are both wrong. But there is a heavy responsibility on us. No matter what happens, we must not allow these boys and girls to become frightened, lose their sense of proportion, forget that they are Americans. Do you understand?"

"I think so. Of course, most of them will be all right. Maybe a few of the boys are yellow, but I can handle them. You just tell me what you want done and I will do it. You can depend on me."

"I will talk to them," said the Professor, and as the two of them walked back to the little group huddled together on the beach, he wondered just what he was going to say.

"I HAVE never been cast away on a desert island before," he began, with a smile, as he held his wife's hand; "so I am not sure just what is the best thing to do first. I have read a lot of books like *Robinson Crusoe*, and I suppose you are more familiar with this kind of literature than I am. You will see at once that this affair is somewhat different from most of the fiction written about such disasters. In *Swiss Family Robinson*, for example, the people were able to save enough from the wreck to start life in a fairly comfortable manner. There is always something saved in the way of food from the wreck of fiction. Here we have nothing. We have some clothing in our bags and I presume that the ladies have toilet necessities. There is no food that I know of, unless some of you brought chewing gum and tobacco.

"It is hard for me to tell what we will find on this island. You understand that we may find anything. Your idea as to how long we are going to

stay here is as good as mine. It seems that the first thing we should do is to orientate ourselves, obtain some idea of the geography, and also at least a slight idea of the natural resources of the place, and whether there are other persons living on it. I would suggest that four of the men, headed by Sithers, spend a part or all of the day learning something about the geography. I will make an inventory of our resources as contained in our bags, clothing and the like. The ladies can walk up and down the beach and see if there is anything there that looks like food. We will all meet here before sunset and talk matters over. I do not feel that there is any particular danger, but I would advise you to keep together in small groups. Any questions?"

He talked almost as though he were lecturing to his classes. There were no questions. That either told the high intelligence of the group or their feeling that it was useless to ask questions concerning things that could not be answered.

Sithers selected three of the men and they walked away towards the center of the island. Olsen helped pile the baggage under a palm tree. Mrs. Kindard took a fountain pen and some writing paper and, with the girls helping her, started to make an inventory of the baggage. The girls came back from the beach with a few clams, and with that the day passed. An hour before sunset the twenty-six Americans met, tired, hungry, but otherwise unharmed.

"Any news, Sithers?" asked the Professor.

"Plenty. You said this morning that this was a different kind of a desert island story, not like the ordinary fiction. You were dead right, Professor. I have to hand it to you that you were right. I have read a lot of that stuff

in all kinds of magazines, but what we saw today is brand new, as far as my knowledge of desert islands is concerned."

"Then we are on an island?"

"POSITIVELY. Not more than two miles in diameter and nearly flat. There are some trees on it, like these palms, a lot of birds, but nothing in the animal line larger than a kind of rat. Flowers and insects."

"Any evidence of human beings?"

"We did not see any, but there must have been some here. At least, there are some buildings."

"You mean huts, or caves that looked as though they had been occupied?"

"Nothing like that, but about a dozen small, glass, Mason-jar-shaped structures; walls of thick glass, and each one has a desk and a chair inside it. There is a bigger one in the middle of the island, but that one has opaque walls, so we could not tell what was inside of it."

"That is a most peculiar kind of house," exclaimed the Professor. "No doors or windows?"

"Nothing like that. Just solid glass."

"I will look at it tomorrow. Now, in regard to food. I suppose that, in spite of the excitement we have all been under, we are all hungry. My wife tells me that there are five bars of milk chocolate and seven packages of chewing gum. I think that we had better let the women have the chocolate and the men can divide the chewing gum. Tomorrow morning we will build a fire and try some of the clams for breakfast. Olsen, I wish you would come and have a conference with me, and I will ask my wife to join us. Suppose we all try to be as comfortable as possible and have a good night's sleep. We may need our strength for the problems of tomorrow."

The two men and Mrs. Kindard walked down the beach out of ear-shot of the others.

"What do you think about it, Olsen?" asked the Professor.

"Not much. Anyone can tell, even without seeing these glass things, that they are very modern. Ancient races knew about glass, but when it comes to desks and chairs, that is different. Seems to me that they were put here very recently."

"That is my idea," agreed Mrs. Kindard. "And my womanly intuition tells me that in some way they are connected with our being here. I have had the idea, since morning, that our being left on the island was not just an ordinary circumstance. I did not say so before, because everybody was so nervous it did not seem worth while to make them more so, but I was sure last night that I heard the engines start on the steamer, and I was not surprised this morning to find the vessel gone. Just what is the idea and who is behind it I do not know, but I am sure that when we do get to the bottom of the mystery, we shall be very much surprised. Of course, Weisman is dead, but, if I did not know that to be a fact, I would try and connect him with it. He was so anxious to have the trip take place; even made arrangements for it in his will."

"**P**ERHAPS we will find out something tomorrow. One thing I must know tonight, and perhaps you can tell me, Olsen. How about the men in the party? You may know them better than I do. Can we depend on them, all of them, no matter what happens?"

"Just what do you mean, Professor?"

"If the worst comes to the worst; if something terrible happens, what is going to be their attitude towards the women? What do you think about

them, as individuals and as a group?"

"That is a hard question to answer. I never met any of them before we started on this trip. Of course we are all college men, whatever that means. Ten belong to fraternities. Parker and I are the two exceptions, and we were too poor to belong, and, anyway, the Frats were not very popular in our colleges. I am sure of Parker, because he has sisters at home and he told me he helped support them even when he was working his way through college. Four of the men are wealthy and have always had everything they wanted. If I remember right, three of the men are only children. There are two chemists, two pre-law and three pre-medical students."

"Do you like them all?"

"No. But what has that to do with it?"

"Which ones don't you like?"

"Hopkins, for one, and perhaps Sithers. They get sore when they have poor hands in bridge. Poor sports, I always thought them."

The Professor turned to his wife.

"Let's leave the matter to rest for the night," he said, and took her hand. "We have been through a good deal in life, my dear, and it may help us to go through more. Olsen, I am going to depend on you to help me. Tomorrow you and I will look into this matter of the glass houses. Till then, good-night."

The breakfast next morning was not much of a success in any way. There was a fire, but it was a poor one, and there were clams, but they were worse than the fire. By eight o'clock the Professor and Olsen were on their way to explore the heart of the mysterious island.

IN the center of the island was a circular one-story building, constructed

of thick opaque glass. It had a slightly rounded roof. From the outside there was nothing that looked like windows or doors. The glass, however, was opaque only on the outside. Anyone on the inside could see out, but whoever was on the outside could not see in. It was a one-track house, as far as vision was concerned. It was connected by terra cotta tunnels with the twelve smaller houses, located in different parts of the island. Each of the smaller glass houses held a small desk and a chair. More important, however, was the fact that their walls were really receiving stations, able to gather sounds for at least two hundred feet from them and convey these sounds to recording disks in the central house. Thus, the occupants of the central house could keep informed concerning most of the conversation held at almost any part of the island, or, by going to any of the smaller houses, they could see what was going on. The large house and the twelve small ones were thus scientifically equipped to obtain information concerning the thoughts or activities of any human being on the island, provided they came within two hundred feet of any of the stations.

This morning two men were seated on opposite sides of a desk in a small room of the central house.

"We are now ready," stated Weisman, "to start our study of human behavior."

"We are," answered Carl Ludwig. "I have to compliment you again on your thoroughness in preparing the laboratory. Not only that, but your method of gathering the material was most clever. As far as I can see, nothing has been neglected to make the entire experiment, not only a success, but also to keep it a complete secret."

"When I returned from my last trip to Africa and received your most care-

fully worded invitation to share in your future studies I was astonished by two things. One was the magnitude and originality of your proposed study, and the second thing was your daring in proposing it to me without your even having met me. There was nothing to keep me from gaining your confidence and then betraying it. You had never met me. In fact, you did not meet me till the week in London, when we mutually killed each other, another one of your clever suggestions. Why did you select me, and what gave you such a confidence in me, Weisman?"

"I am a psychologist, Ludwig," was the calm answer. "I study human behavior. It is a pet theory of mine that, given the need and the opportunity, a group of human beings will rapidly revert to primitive life and even lower than that. You have been working for years on the idea that the monkey is going up in life. I hold that man is going down. If we have come up from the ape, we have come a long way, while if we have come down from the angels, we have fallen three times and are still falling. I think that civilization is nothing; culture is less. Underneath, man is the animal, and all that is needed, to strip the culture off and make a monkey of him, is necessity."

"Now, how did I know I could trust you? By one little episode in your African studies. Perhaps you recall the details? You were ready to start for the coast with your records, the accumulated study of three years spent in wire cages, studying the language of the apes. During that time you had been served by a number of natives who had been promised full pay for their time. Three days before you reached the coast they became suspicious of you and wanted their pay. You doubled your promises. You made them rich for life, in promises. They believed you, and

stayed with you two more days. The night of the second day they died, mysteriously died. You came to the coast alone, hired some porters, secured your records and brought them safely to Germany.

"These men had served you faithfully for three years, Ludwig, but at the end, when you were through with them, they died. The important thing to you was the safety of your scientific studies and not the keeping of promises. What killed them, Ludwig? You need not answer that question, but we know who killed them, don't we? I heard about it, the part that was given to the public, but I read between the lines, and I said to myself, 'Here is a scientist who allows nothing to interfere with his studies.' I knew that I could trust your scientific mind to follow me in this experiment of mine, the study I have spent years and my fortune in preparing for. I had to have some one to help me, and that person had to be absolutely able to keep everything out of his mind except the final goal."

"YOU compliment me, Weisman.

But suppose we go on as you have outlined to me since reaching the island. Suppose we do. Let us say that the experiment reaches its definite ending. Can it be given to the scientific world? Not every one places science above the humanities of life. Just what is accomplished if we finish the study and can tell no one our conclusions?"

"I am not worrying about that. All I want to do is to satisfy myself that I am right and show you that you are wrong. You have stated repeatedly that the ape will some day become a man, but that man will never become an ape. I disagree. I wanted to show you how wrong you were.

"Up to this time the human being has always opposed human experimentation.

Perhaps, very timidly, a scientist has given various serums to others, mainly criminals, already sentenced to death. Now and then a brave man has experimented with himself. But such scientific study has been looked on with disapproval by the world at large.

"What has been the result? We have used animals for study and we have taken the result of our studies and tried to give them human significance. We say that if a turtle or a monkey or a dog does certain things at a certain time, reacts in definite ways to certain stimulations or situations, perhaps human beings would do the same. Are we right in such an assumption? I say, and always have said, that we are wrong in such thoughts. The only way to study human behavior is to study the behavior of human beings. So, I have bravely taken twenty-six intelligent persons, thirteen male and thirteen female. I have placed them on this island under circumstances which will lead the world to think that they are dead. For a while they will be mourned for and then they will be forgotten. I have made the world think that you and I are also dead and we will be forgotten and perhaps not mourned for.

"This island is our laboratory, a test tube, in which we can put human beings and watch what they do when the acids and alkalies of life are poured over them. As they squirm and degenerate and finally die, we can observe and record their every action, almost their every word. It may take ten years to turn them into apes, but we are both young enough to give ten years to the most interesting study ever undertaken by scientists, observers of human behavior. Then we will write our conclusions and give them to the world; something new in science."

"A stupendous idea," commented Ludwig.

"Rather so. And from it I name this unknown, uncharted island in the Pacific Ocean. From now on it will be *The Island of White Mice*. Six months ago there was a Professor, rather a nice sort of man and his wife. There were also twenty-four college graduates. Perhaps the twenty-six represented the culture, the intelligence, the cream of American society. What are they this morning? Just twenty-six white mice. Keep that thought in your head. *Just White Mice*."

"And our first experiment?"

"A VERY simple one. Society for centuries has had for its important axiom that the female must survive. *"Women and children first,"* with the idea that only thus the race is perpetuated. We have said it but do we know it to be a scientific fact? The first thing we will do is to furnish our white mice with only enough food to keep half of them alive. The rest will be left entirely to them. What will they do? I do not know? Do you?"

"No. But there are only a few things for them to do. They may draw lots and half of them commit suicide. They may fight it out among themselves, on the theory that only the fittest should survive. Perhaps the men will kill the women. Or they may all bravely starve to death, gradually."

"I do not want them to do that. Some must live on. Some will live on, but who? Of what sex? Of what age? That will have to be determined by actual experimentation. Here is a possibility. It is one reason why I selected Olsen. He is big enough and brute enough to decide to kill all the other men and live on with the women. It would be a very satisfactory ending to that experiment."

Ludwig started to drum on the table, very softly, with just one finger nail. At last he said with a twisted smile.

"Have you figured on the human equation? There are other people involved. The crew of the ship, the Captain. It would be very sad if they gave an American the information. Are you protected?"

"VERY much so. They are so deeply involved that they cannot say a word without hanging themselves. Besides, I am their bread and butter for the rest of their lives. There was only one man I feared and that was Taine of San Francisco. He is a free lance detective, who has a disagreeable way of discovering criminals. At present, he is in the interior of China, under my employ, and will be there for a least a year. By the time he returns even he would have an impossible task of picking up the cold clues. I have ceased to worry about him. And now for the perfect human experiment."

"It is more than that," cried Ludwig, enthusiastically. "It is the perfect crime."

"What is a crime?" asked the psychologist. "Simply that peculiar something that does not meet with the approval of the ruling powers of the country. This island is a country. You and I are the rulers, and the other twenty-six human beings on the island are merely so many white mice."

"Here are two of them now," observed the German.

"I judge from his age that one is the Professor, and from his size that the other is Olsen," commented Weisman. "We shall now have an opportunity of testing out our conversational machinery."

The two Americans walked up to the central building. They looked at it and felt the glass walls. They walked completely around it. Suddenly they paused as a voice spoke to them,

"Good morning, Professor Kindard."

"Good morning to you," was the reply.

"Good morning, Mr. Olsen."

Olsen simply looked at the wall without replying.

"I suppose you are wondering what this means, Professor."

"I am, and very much."

"In due time you will arrive at some conclusions which will be approximately correct. Just at the present all you have to do is to obey my orders. As you no doubt know there are twelve small glass observation houses scattered over the island. In each is a desk. On that desk will be a large piece of paper with a number on it. Everyday, outside of one of these houses, will be placed thirteen rations of food in thirteen cans, each ration being sufficient food for one person for twenty-four hours. With these cans will be directions as to where to find the food for the next day. Do you understand me, Professor?"

"I have heard what you say, though I cannot see you. But there is one thing you do not know. There are twenty-six persons in our party."

"I KNOW that, but there will be food for only thirteen. And a word of caution, Professor. Practically, all the fish are poisonous and the clams will make you very sick if you eat them regularly. The birds are wild and you have no firearms. Of course there are a few very small mammals. Thus, you are dependent on us for your food supply. At least, thirteen of you will be. And you understand that any offensive action on your part will deprive even the thirteen of their food. Between buildings 7 and 8 you will find a very good spring of water. Two hundreds yards to your left, as you stand at this time, is building 10. If you go there, you will find the food for today. With the cans is a can opener. Near the beach on the

low hill under three palm trees is building 3. There is a hot-spring there, where the food can be warmed by submerging the cans before opening them. That is all for today."

"You can't do this!" cried the Professor, shaking his fist.

"Perhaps we cannot do it, but we have done it. Remember, the food is at No. 10 today. If you are hungry, you had better get it."

The Professor ran up to the building and started to hammer at the glass with his fists.

"Let me in!" he called. "Let me in! I must talk to you!"

Olsen picked him up as though he were a child and started walking with long strides to the left of the central building.

Weisman started to write in a book.

FACT I. The Professor feels that a deep injustice is being done and loses his temper.

Ludwig leaned over the desk and watched him write. Then he remarked slowly.

"You had better write as fact number 2 that the big Swede, Olsen, never said a word."

"Olsen is thinking," answered the psychologist. "It takes a Swede a long time to do that."

Olsen carried the Professor some distance before he put him down. After that they walked in silence to No. 10 and found the thirteen tin cans and the can opener.

But Olsen kept quiet and motioned to the Professor to follow his example, so, the two scientists heard nothing from the receiving plates of building No. 10.

IT was nearly two that afternoon before the two Americans joined the rest of the party. The Professor asked the other eleven men to join him for a conference. He gave the

thirteen cans of food to his wife, told her to open them and divide them among the women.

"We are in a very serious position," he told the men. "There are some other men on this island. Just how many, or why they are here is something I cannot understand. Olsen and I have talked to them up at the central building. We could talk to them, but we could not see them. They could see us. One man did all the talking, but he used the word *"we"* and that makes me think there was someone with him. He knew who we were, and that makes me feel that he knew about the trip around the world, knew who was to make up the party, and perhaps had something to do with our being here. In fact, the way he talked it looks as though this man prepared for our arrival.

"We were promised thirteen rations of food every twenty-four hours. No more and no less. Each ration is enough to keep one person alive and possibly in good health. It is not enough to feed two persons. I want you to get that idea. That is why I brought you here. It seems that this man or men are willing to keep half of this party alive and let the other half die of starvation. The thing we have to decide is what to do with this food. In fact, we have to decide what to do with the entire problem. What is your opinion, Hopkins?"

"Just one thing to do. There are thirteen of us. Divide the food and rush the building, and get them."

"What do you think of that, Sithers?"

"Sounds good to me."

"How about you, Parker?"

"Only one thing to it, Professor. The women have to have the food. We men can get along on clams and perhaps we can learn to catch some of the rats or birds. Can't let the women go hungry. And I am not sure of breaking into the main building or any of them. How are

we going to do it? Certainly not with our hands, and we have no tools. The only thing we have right now is brains, and those men in the big building have brains that are as good or better than ours. They are probably armed. If we started a fight, they would simply kill us. And I have a very good reason for not wanting that to happen to me. You see, Julia and I have been talking things over and we were going to be married when we returned to the States. And she does not want to marry a dead man."

"Looks as though you were a coward," sneered Hopkins.

"He is anything but that," cried a feminine voice.

The men had been so interested in their conversation that they had failed to notice the thirteen women who had joined the conference without being invited.

And it was Julia herself who had made the comment.

"I want to say something," inserted Mrs. Kindard. "The Professor and I have been married for a long time. Whenever he used to bring me ice cream and say that he was not hungry and I should just go ahead and eat it, I knew that he did not have enough money to buy ice cream for the two of us. That is why we girls left the cans unopened and joined this conference. What kind of American women do you think we are anyway? You men go and hunt clams and then all of us will have supper. And you need not think that we women will eat while you men starve. I have not talked to the girls. We have not had time, but I know how everyone of them feels about it."

"My dear," whispered the Professor. "You really were not asked to express an opinion."

"We realize that," cried a tall blond, Joan Swanson by name. "But I am sure that Mrs. Kindard expressed the thought

of every woman in this party. If there is trouble, and there seems to be plenty, then there is no reason why the women should not share it with the men."

"I do not think that there is any room for women in this discussion. It is for the men to decide these matters," said Sithers coldly. "Of course, I realize that Miss Swanson's attitude may be influenced by love, but mine is not. I am going to look at this from a cold, unemotional point of view."

Olsen simply looked at him.

The Professor sighed,

"Well, boys," he said softly. "For the present the women seem to rule. I suppose that the best thing we can do is to hunt for clams."

Up in the central house the two scientists had been listening in to the conversation transmitted to them from building No. 2.

"So far," commented Ludwig, "these Americans appear to be running very true to their conventional standards."

"So far," answered Weisman, "the spur of necessity has not struck their abdomens. I am looking for some very interesting developments from Sithers and Hopkins. They seem to be uninfluenced by feminine trends."

"Olsen," added Ludwig, "is a man of few words."

For the next five days nothing happened of special interest. The thirteen rations were supplemented with clams and the twenty-six adults slowly became very, very hungry. On the sixth day, with the thirteen cans of food came a paper on which was type-written:

We need two stenographers. They will be well fed.

The Professor passed the paper around. Finally it came back to him and he carefully folded it and placed it in his wallet.

"The answer is obvious," he commented.

THE next morning Hopkins and Sithers appeared at the forenoon conference bruised, and each with a beautiful black eye. They were mad and made no effort to conceal it.

"We have a complaint to make, Professor!" cried Hopkins, "and I think when you hear the story you will feel that we are justified. Sithers and I had a plan all worked out to put an end to this deviltry that is going on around here. We decided to go up to the big house, apply for that job of stenographers, get into the house, beat those men up and capture the works. We went up there, talked matters over with the man, and he said he would take us in, treat us right and keep on giving the rest of you the thirteen rations of food. We thought that even if we could not get the upper hand right away, it would be just so much more food for the rest of you, and we were willing to take our chances. Everything was going fine, in fact, a secret door was swinging open to let us in, when Olsen jumped on us, and beat us up and it ended in the three of us coming back to the camp. Of course, just as soon as the fight started the door shut and our chance was lost. If Olsen had attended to his own business we might have won out. Now, who is running this show, anyway? Do we have to stand for this sort of conduct?"

The Professor turned to the Swede.

"Did you do that, Olsen?"

"Looks like it."

"Why?"

"I did not like the idea. Something told me that they were going to walk out on the rest of us; so, I followed them and when I heard them talk, I simply brought them back. That is all."

"Want to leave us, Hopkins?"

"We do."

"All right. Go ahead. You two are entitled to one ration, and I will give it

to you every day if you come and see me. I feel that it is poor policy to divide the party, but if you and Sithers want to go your own way, I guess that is your right. Any body want to join them?"

To the surprise of all, one of the pre-medical students spoke. His name was Lawrence.

"I have kept quiet so far, Professor, because I wanted to see what was going to happen, but I have not been pleased with the quiet, meek way this crowd of educated people have taken this entire affair. I thought from the start that we ought to begin and find some solution to the matter. These two men had a good idea. At least, they were willing to try something. Olsen had no business ruining their chances. If they are going to leave the group, I am going with them. At least, they are willing to fight the enemy instead of fighting our own people as Olsen did. If Olsen is going to be the boss, I am leaving. On the other hand, if Olsen behaves like a gentleman instead of like a big bum, I want to stay. How about it?"

"I DO not think," explained the old man, "that Olsen had any idea he was acting like a bum. You must remember that he has worked in a lumber camp; he has a different viewpoint on life, reacts in a manner different from some of us. He does not talk much, but when he acts, he does so in a rather direct, primitive manner. I have no doubt that he did what he did on the spur of the moment, and, perhaps, if there had been more time to think it over, he would have done something else. He is not going to be the leader of this party and I am sure that he does not want to be. But you do as you think best. If you leave, you have a half ration a day."

The three men left.

The next day when Olsen and the Professor went to the specified building to get the day's food, there was no food there.

"And that means one of two things," sighed the Professor. "Either there is no food, or those three friends of ours got here first. Either explanation is bad."

Up in the central building the scientists were beginning to enjoy themselves.

"The culture is cracking," cried Weisman. "The nice party is over and they are beginning to revert to the animal type. Did you ever see apes steal food from each other, Ludwig?"

"I have. But I really did not think that those three college graduates would start in so soon. They must have known that the women would go hungry."

"They did. Perhaps their idea is to secure control of those women. We will see. Perhaps the best thing to do is to give them all the food and then see what they do. Shall we try it? Give them a lot of food with the understanding that they won't get any, unless they share it with the women. Then see the lady-mice jump!"

That is what happened.

In each of the small observation stations, on the desks, appeared placards, each bearing the same message:

"THE CONDUCT OF SITHERS, HOPKINS AND LAWRENCE MEETS WITH OUR APPROVAL. FROM NOW ON THESE THREE MEN WILL RECEIVE SIXTEEN RATIONS OF FOOD EACH DAY, PROVIDED THE THIRTEEN WOMEN JOIN THEM AND HAVE NOTHING TO DO WITH THE OTHER TEN MEN. IF THE WOMEN REFUSE, NO FOOD WILL BE ISSUED TO ANYONE."

The women saw one of the notices. It was accidental, but once they saw it, they went and held a strictly personal conference. On coming back they lost no time in announcing their decision. It was rather singular that Joan Swanson acted as the leader.

"I want to tell you men something," she said. "We women have been talking things over, and we came to a conclusion that is purely feminine. When men reach the point where they cannot take care of their women, they stop holding their women. Now, these three men are able to provide us with food and you ten men can't, and that is all there is to it. We like you. Some we like a lot, but we do not see any use of dying from hunger just to show that we love you. So, it is good-bye till you find a way to feed us, and from now on we are going to eat one ration a day without clams, instead of half a ration a day with clams. And if this is an experiment on the part of these men, we have never seen, I hope they understand how women feel. They get tired of going hungry."

THE scientists heard that decision of the women and made a record of it.

"Now, we are really observing something," laughed Weisman. "These women are acting just like your monkeys would act, Ludwig. They decide to go with the male monkey that can take the best care of them. Am I right?"

"Absolutely right. A female monkey will do that every time. But, at the same time, I want to say that these are not female monkeys; at least, not yet. They may act like them, but wouldn't any woman do the same thing, in Hamburg, or New York? I think that is human female nature just the same as monkey female nature. What I was interested in was the way the Professor took it, and Olsen. They took it. They did not like it, but they did not say a word."

"Perhaps they knew they were yellow."

"Perhaps they did."

"The next thing to do is to find which of the three is the King monkey. We will double the ration if there is

one of the three big enough to take the thirteen women away from the other two, and then we will give some kind of premium, tobacco, or a quart of whiskey a day to the King if he kills the old woman. I want to get them down to the raw animal as soon as I can. I want them to start fighting and loving and acting like real monkeys. I think that if Hopkins gets started on liquor, he will give us some interesting data. I have not told you but he had a reputation as a gentleman drunkard in college. That is one reason why I picked him out. A quart a day will make a real, intoxicated white mouse out of that man."

"Monkeys get drunk," observed Ludwig, "but, when they do, they just make more noise."

Two days passed, and then Mrs. Kindard walked into the camp of the ten lonely men. Her arms were filled with cans of food.

"I thought you men would like to have something to eat," she said, "and hear the news."

"The news," commented her husband, kissing her, "is far more important than food, though even that is welcome. I have had a bad time holding Olsen in. He wanted to go over and kill those men and drag his girl back by her hair. But I told him I trusted you and that he had to trust Miss Swanson. I knew you had some idea back of your conduct, my dear."

"You are right. We went over there and gave our unconditional surrender. We filled up on good food, took a few setting-up exercises, and a dip in the ocean, and then we waited till the men went to sleep. In the meantime, we demolished such of our clothing as was not in rags already, and, by the time we were through with those three men, they thought a cyclone had hit the island. We have them securely tied to trees,

and, not only tied, but gagged, because I have an idea that if anything is said within seeing distance of one of those little glass houses, those unknown men can hear every word. We have been collecting the food, and we have a lot of it and enough to feed you besides, just as long as we can make them believe the three men are at liberty and raising trouble with their thirteen women.

"Yesterday we got a message that if one of the men chases the other two men away and keeps the women to himself, the food will be doubled and a quart of whiskey will be added to each day's rations. So, we made Hopkins the goat, and, sure enough, the food and the whiskey arrived as promised. We let Hopkins loose and made him take the message of his murders and feminine victories, but that Swanson girl was right with him, and, if he had double crossed us, I think she would have broken his neck. I never saw a stronger girl in all my life. She handled those men just like so many babies, and when she starts twisting their arms, they do just what she says. She nearly killed Sithers the night we tied them. Said she was going to kill them anyway, if Olsen broke their engagement. So, for the time being, we will all have food enough, and we certainly have missed you men. Those three we have, are not very nice companions, but they certainly are bringing in the food."

Olsen smiled.

"That girl is a strong girl, Mrs. Kindard," he whispered. "She took all the heavy weight events in the last Olympic games. You tell her that Olsen still loves her. The Professor told me that it would be all right, but it sure made me mad to have her leave me the way she did. You be sure to tell her. And we will do something. I do not know what, but we will do something."

"YES," agreed the Professor. "You keep the two men who are supposed to be dead under some ferns, and keep hold of Hopkins, and we will do something, and right away. You tell the girls they are a bunch of real sports."

"And please tell Julia I still love her and miss her a lot," said Parker. "I bet she was right in the middle of the fight. She is not as big as Miss Swanson but—"

Mrs. Kindard interrupted him.

"She is a real fighter, Mr. Parker. The night we tied the three men up she grabbed Lawrence by the ear and nearly tore it off before we could convince her that he had stopped fighting. She was almost savage. Those three men look terrible; almost as if they had had typhoid or something. Every time one of us women come near them they shiver, and we are kind to them, too."

Mrs. Kindard finally left, promising to be back on the next day with more food. Arriving at the camp of the women, she found everything in an uproar. The Swanson girl was mad enough to bite a palm tree in two. They were surrounding poor Hopkins.

"What in the world has happened?" asked the old lady.

"Happened?" answered Miss Swanson. "Why, this shrimp tried to run away from us when we were dependent on him for our food. He got a start on us and arrived at the big house two hundred yards ahead of us, and when we got there he was telling those men all about us, said we had double-crossed them, and that the other two men were not dead, and that he was not a Sultan, and that we were abusing him and pulling his hair and twisting his arm to make him say all that he had said and would they please let him in to save his life? and perhaps they would have. At least, they started to open a door just as I caught him; so, I threw the

pup to the girl and dared them to come out and fight me singlehanded, one at a time or all at a time, and they just laughed at me and said that if I wanted to be a female monkey god, I could be one and starve, for all they cared, and that from now on we would not get any food—and I had been so happy to think that I was going to be able to feed Olsen—and he does love good food so much, and this toad had to go and spoil it all, and we were all so happy, feeling that we were doing our bit, and Julia was telling me about Mr. Parker and how she loved him and she didn't want him to starve and some of the other girls are in love too and worried about their men, and this excuse for a man had to run away from us after we had made him a king and even promised him a spoonful of whiskey a day if he would be nice and behave himself and do what we told him to. He had to run away and ask our enemies for protection. I ought to kill him!"

Hopkins started to cry.

"Please, Mrs. Kindard," he sobbed. "Don't let that woman hit me any more. I have had all the pain I can stand. You are a good woman and I'll let you kill me if you want to, but don't let her pull my hair and twist my arm any more."

They took him to the ferns where the other two men lay, and after tying him and gagging him, they left him there for the night.

THE two scientists had seen the fugitive run towards the house, chased by the infuriated women. Hastily, they decided to let him enter the building. His sobbing statements as to what had really happened, so different from what they thought had happened, made them feel that it would be worth while to take him in, at least, long enough to hear his story. They finally

opened the door, but it was too late, and they hastily shut it. Once they were safe, once they saw how these women were handling the man, once they saw the Swanson girl in action, they decided that they had acted wisely. After the women left, taking with them their sobbing prisoner, they went into a serious conference.

"I shall have to tell you one thing, Weisman," commented Ludwig. "I have watched monkeys for years and years, and I never saw a king monkey act that way. If he is a king, then I am a monkey myself. And we thought all the time that we were recording some valuable experiments. Those thirteen women double-crossed us for fair. All they did was to lie to us and get more food. I never did like a woman very much, but after today I will never trust one under any circumstances. If those women had gained entrance into this laboratory, they would have made it look like a pile of jack straws. Did you see the way that big girl handled the man? I thought she was going to break him in two. It would be interesting if in the end the female white mice ruled the island. If they do, I bet that girl will be the Queen of the new nation."

"I am not worried at all about the way things have gone," answered Weisman. "If the women rule, that is just the way it is in all the lower forms of life. The unusual activity of these women under stress simply confirms my idea that the lot of them are reverting to type and they may end up in going, not to the ape stage, but below it. They may go down to the spider stage. If hunger drives, they may become cannibals, and right now it looks as though their three male captives would be the first to satisfy their hunger. I like it. The entire proceedings are most interesting to me. I think I will issue a lot of whiskey and a very little food and let them get

drunk. All of them, and now suppose we get busy with our notebooks. We are seeing and hearing things that no man has ever had a chance to see and hear before. It is all very important."

"How about our guns? Are they loaded?"

"They are."

"Let's keep them handy. And I suppose you would have no hesitancy in shooting to kill, even the women, if they should get to us?"

"I have killed white mice before," answered Weisman.

The next day the thirteen women marched back to the home camp, dragging their three bound captives, and carrying a little food and a lot of whiskey. Olsen took the whiskey and broke bottle after bottle till just one quart was left, and that he gave to the Professor, saying,

"I can trust you with it, and I am not sure that I can trust anyone else, not even myself."

It was Olsen who took charge of the meeting that night. He issued the order.

"**T**OMORROW," he said, "we are going to start the offensive. Perhaps those people in the big house are more afraid of us than we are of them. Tomorrow we are going to move up there, and we are going to get to them if we have to tear this little old two by four island to pieces. I have gone into a hillside fourteen feet to get a woodchuck and I will go into the island a hundred feet to get these men, and, when I do, I am going to break them to pieces if I can reach them ahead of Joan Swanson. We will take these three men with us, and we are going to keep them tied, though I guess the women could handle them even if they were loose. We are all college men, and we have been taught to use our eyes, and our ears, and our finger tips. Some-

where these men have forgotten something. We will find out what it is. We will eat all the food we have, and take a good sleep, and tomorrow we will start in and show these men that they are handling buzz saws."

The next morning the advance was made on the central building. The three captives were taken along and tied to three palm trees growing within a few feet of the walls. Then the party started to study the building and its surroundings in every way. They swarmed over it, climbed on the roof, tried in every way to find a loose joint. Olsen had found a piece of stone and was bouncing it up and down on the roof to see if he could crack it.

Weisman and Ludwig were busy making notes.

"Very interesting!" cried the psychologist. "I am glad that I had this made of shatterproof glass."

"Nothing new to me," shouted Ludwig. "Something like this happened to me in Africa. A tribe of giant apes spent a whole day trying to tear my cage open and get me. They did turn it over, but that is as far as they got. I think they must have taken all that whiskey you gave them. They act as though they were drunk."

"They are mad!" answered Weisman. "I was worried because they did not get mad. Now that they are acting the way they are, I feel better. It is more normal. Perhaps when they find that they cannot kill us they will kill each other. The women are worse than the men. I am glad that we are safe. Those women! Why, I never thought that civilized women would act this way. White mice intoxicated and females at that! Be sure to get as much of their language as you can."

Joan Swanson climbed up on the roof, and shook Olsen to attract his attention.

"Come down," she said. "I want to talk to you."

"What is the matter?"

"I will tell you down there, by ourselves."

"I am busy. I want to break this roof in."

"Please come. This is important."

Some distance from the building she paused and whispered.

"You see those three palm trees? The ones the men are tied to?"

"Sure, I see them."

"Well, two of them are hollow. I think they are made of metal."

"How do you know?"

"A little while ago I passed Hopkins and he cursed me. I did not like it."

"I should say not. I'll make him stop it!"

"You need not bother. I went over to him, took his head between my hands and banged it against the tree till he stopped cursing, and from the sound it made I believe it is hollow."

"What! His head hollow?"

"No, stupid. The tree. And then I went over and tested the other trees the same way, and one of them sounded hollow and the other flat, and then I stripped some of the bark off and they really are metal and I think it is important."

"I think you are right. Suppose we tell the Professor."

THE Professor was interested. His idea was that if they were metal and hollow they were there for some purpose.

"If we climbed the trees and looked down, we might learn something," he suggested.

"And if they saw us doing it, and thought we would learn something, they might shoot us," argued Olsen.

"They must not see us," whispered Joan. "I have an idea! We will make a

lot of mud. Tonight is full moon. We can carry the mud up in suitcases and tonight we will plaster the walls of the building and the roof. They cannot see through mud, can they? Then someone can climb up. Oh! What can they be used for if they are hollow? And even if we get up there, we could not get down fast enough to overpower them, could we?"

"The mud idea is a good one," agreed the Professor. "Let me see. One of the girls, I think it was the one called Maud, the red headed girl, studied architecture. She ought to know about buildings. Let's have her over here and ask her what two hollow trees could be used for?"

Maud came over. She was a little girl, hardly a hundred pounds in weight and about five feet tall. She was dirty, sweating and her red hair was in a glorious tangled heap.

"I am having the time of my life," she said, laughing. "I am not very big or very strong; so, I planted myself near the wall and I have been telling those men what I think of them and my vocabulary has been something shocking. If my Aunt Martha heard the words that I have been spilling, she would faint in her rocking chair right in Homewood, Kansas. I bet those fools in there have red ears by this time, just listening to my opinion of them."

"Calm down, Maud, and tell us something," whispered the Swanson woman. "See those three palm trees near the big house? Two of them are hollow and made of metal. Now, what could they be used for in connection with a house? Use your education, girl, and do some thinking."

"They must be chimneys!"

"No. They do not need fire in this climate. Guess again."

She took the little girl by the shoulders and shook her.

"Think some more!" she hissed.

"Ventilation," stammered the shaking girl.

"That is it," cried the Professor. "Ventilation. One chimney to take the pure air in and one to send the used air out. The house is almost hermetically sealed. They have to have air and that is the way they get it."

"Now, we are getting somewhere," commented Olsen. "Climb up and plug the chimneys and they have to come out."

"No, they don't," answered the Professor, "How about the little houses? They can go into the nearest one, open the door and shoot us down before we can do a thing to stop them."

"We get so far and then no more," sighed Olsen. "Suppose you call your wife over, Professor. She has some real good ideas. Tell her the whole story and see what she has to say."

THE Professor thought that was a good suggestion, and in a short time Mrs. Kindard had the entire problem placed before her. She frowned a little and then smiled,

"When I was a girl in the country, the young rascals thought it was a good joke to drop a hornets' nest down a chimney. I have seen some large paper nests on this island. How would it be to drop a few down the intake chimney? When they landed, the hornets might be rather annoyed."

"That is a good idea," said the Professor with a smile. "No doubt, they have a screen at the bottom to keep out birds or lizards, but a real lively wasp could get through. Now, all we have to do is to cover the place with mud, and also all the smaller houses that are in direct line. I think there are only three of them. But we must keep very quiet, because they have sharp ears. Then we shall have to get to the top of those

trees and find which is the intake, and another big job will be to find the wasp nests and persuade them to go down the tree and start business. We will have to have ropes, and the only thing we have to make rope out of is our clothing."

"We still have some left and we can do with less if we have to do it," smiled Miss Swanson. "I think that I will take two of the girls who play tennis, untie the three shrimps and start them to work carrying mud in suitcases. They need a little exercise. They may try to give the secret away; so, I guess I had better gag them so all they can do is to go blah-blah-blah."

"Let's get started," whispered Olsen, in a hoarse voice. "I will go and tell some of the boys to keep on raising Cain. I want those men to think we are still breaking our necks trying to get to them."

Joan Swanson picked out three girls to help her and then went over and untied the prisoners, and loosened their gags.

"Time for your morning exercise," she said.

"When do we eat?" asked Lawrence.

"When we do. The rest of the day you carry mud in suit cases."

"We won't do it!" screamed Sithers.

"Put the gags back, girls," commanded the feminine leader. "These little ones have to be taught their lesson of obedience. Their Mamas spoiled them when they were babies, and they never grew up. Pull their hair, twist their ears or arms, but when you tell them to do something, see that they jump."

The noise outside the big building kept on but there was no conversation that was at all helpful to the two scientists.

"These people are far from the monkey stage," observed Ludwig. "A monkey will work his fool head off for

fifteen minutes trying to do some fool thing, and then he will suddenly forget what he was trying to do and start doing something else. I believe you psychologists call that distractability. These white mice, your laboratory pets, seem to have a one track mind. Apparently, part of your idea is being worked out as you expected. There is an old man of the herd, but he seems to be willing to get along with one female who has been his wife for years. There are two strong ones, a man and a woman, who are rapidly assuming leadership, but they have not killed the old man to do so; instead, they consult with him. The only time they completely fooled us, it was the female mind to blame. So you see, it runs true to your anticipations in some respects, and then in some ways you are surprised. One thing I am sure of. Up to the present time they show more good than bad, more virtue than vice, more God-action than monkey-conduct. They did not even kill the three men and they had reason enough to do that."

"I AM not concerned as to what they do or don't do," replied the psychologist. "This is an experiment, and I am willing to let it work out according to the reaction of the chemicals and situations, but there is one thing I do want to do. I want notes, complete notes, copious notes. Everything that goes on I want noted. Be sure to slip in a recording disk every fifteen minutes, so we can analyse the noise that they are making. Write as fast as you can."

"You don't have to tell me to do that. I am just as much interested as you are. But I am disappointed. If these were monkeys, the fur would have been flying by this time. I am glad you have those guns ready. It would be a good idea to have a revolver or two ready."

"I will get them, and suppose you go

to sleep and be ready to do the observing tonight. They may start talking if they think we are asleep. I want to know what they are thinking about."

"That is a good idea. We may get something from the men, but not from the women."

"Why?"

"Because the women don't think. Didn't you know that?"

The next morning the scientists found that the daylight failed to give them the usual amount of light. Weisman went down some of the tunnels so he could see what was going on from other viewpoints. He came back rather disturbed.

"Do you know what they have done, Ludwig? Those mice have covered the three observation units near here with mud. I cannot see a thing."

"I suspected that. They are doing the same thing to this building. They have the roof covered already with some kind of dirt and are throwing mud up against the sides. I think that they want to blind us, keep us from seeing what they are doing."

"Very interesting. But they cannot blind us entirely for a day or so and they must be wearing out from hunger. We can still hear what they say. And have they been saying anything?"

"They have. Some of the women are singing, and the same thing over and over. I sang it with them; so, I learned it. Sounds a little like monkey language to me."

"What is it? Tell me?"

"Listen to it yourself. Get it? *Ar-mavirumque cano. ARMAVIRUM-QUECANO. BUMBYTIBUMBYTI BUMPBUMP*. I must have a record of that. It sounds a little like the song of the female giant apes during the mating season."

"You are positively impossible, Ludwig!" laughed Weisman. "If I did not

know you were a real linguist, I would think you were a real fool at times. That is Latin, not monkey talk."

"Is that so? I never did like Latin. Perhaps they learned the language from their simian ancestors. That is a wonderful idea! The language of ancient culture derived from the apes. That is headline stuff. I can write a paper on it that will make the world sit up and take notice."

BY night the big house was thoroughly smeared. The Psychologist was on duty from six to twelve and then went to bed, leaving Ludwig on observation duty. Confident of the security of the building, happy over the progress of his experiment, he undressed, shaved and went soundly to sleep. He had a dream in which all of the mice except one was dead, Ludwig had gone to Africa and he was spending his honeymoon on the island with Joan Swanson. It gave him a great sense of superiority to realize that he had subdued the Amazon. He was roused from his sleep by Ludwig, shaking him.

"Get up, Weisman. There is real Hell started."

"Don't worry," he responded dreamily. "Those white mice could not break in here for a thousand years."

"They can't, but the wasps did. Hundreds of them. Thousands of them! They have taken the place. I have been bitten a dozen times. They think I am a pin cushion."

"Wasps?"

"Yes. They started to come through the air intake pipe. I tried to block it, but they were too much for me. We have to take our revolvers and get out of here."

"Let me think."

"Think all you want to, but I am not going to stay in here and be killed by wasps. Here they come now. Hundreds

of them. Here are your revolvers. Cover your eyes as best you can and let's go."

Before Weisman could make reply a dozen of the infuriated insects had settled on him. That was enough to convince him that his co-scientist was right.

"Come on," he cried. "Give me two revolvers and we will kill some of those mice. It will serve them right to drive the living men in here. Do you think they did this?"

"I am not thinking. I am going."

They dashed to the door, opened it, and dashed out, ready to shoot. They did shoot, but nothing happened. They were downed, covered, submerged by a mass of struggling, sweating, fighting men and women. They were beaten, had their hair pulled, their arms twisted, and finally they were tied and carried away from the doorway through which the fighting wasps were already pouring, seeking for new victims.

At a safe distance they were put down, tied against two trees and ringed about by the Americans, tired, almost fainting from hunger, dirty, unshaved, half clothed.

THE Professor gave orders.

"Mrs. Kindard, you take a few of the girls and one or two men and, just as soon as you can, get in there and get some food for us. I think that the wasps will soon be out. If you can find a medicine chest, send me some spirits of ammonia so I can make these gentlemen easier. Their faces are already badly swollen and I do not want them to die before I talk to them. But we must eat, or we will die before they do. Olsen, you get the extra ropes and make sure they are tied well, also our three prisoners, and I guess you can take their gags off, and give them a little water. I do not want to be too

rough with them. Miss Swanson, Olsen and I are going to go through the buildings as soon as we can and see if there are any more men there. Perhaps they had a cook. Can you and the girls watch these new found friends?"

"I think that we can keep them safe," replied Joan; "Only I am not going to let them swear at us. Can I treat them if they do?"

"You have my permission."

The big girl sat down in front of the two men. They were sick, suffering, swelling rapidly. Ludwig did not look so bad, but Weisman, in his pajamas, was almost in shock from his bites.

"Just who are you, anyway?" demanded the girl. "What was the big idea?"

Weisman tried to answer, but his face was so swollen that he could not talk. So, Ludwig answered for him,

"We are two scientists."

"That's odd. You don't look like scientists to me. You see, I majored in English and Athletics when I went to college and I never saw a real scientist, at least, I never was so close to them. You don't look like scientists to me."

Ludwig did not answer. He had fainted.

The wasps were finally persuaded to leave the building. Food was found in large amounts. Medicine was discovered, and first aid given to the two unconscious men. Breakfast was served. After that Mrs. Kindard showed her real feminine, maternal instinct.

"Let's untie those three boys," she whispered to her husband. "They have suffered enough, and I do not think that they are really bad. At least, they cannot hurt us."

Her husband thought that it was a good suggestion. He went and told the prisoners that everything would be for-

gotten if they would just behave themselves. Sithers and Lawrence took the chance without a protest, but Hopkins wanted a promise made.

"Can you protect us against those women, Professor?"

"I think so. They won't hurt you unless you start something. In fact, some of them may pity you so much that they will fall in love with you. You simply acted foolish, and they resented it. After all, they were very valuable to us. Our victory was entirely due to their suggestions and initiative."

By late afternoon everybody had washed in the ocean and put on clean clothes from the scientist's wardrobe. The two sick men were in bed, guarded by men and nursed by women. The supply of guns and ammunition was carefully inventoried and divided. Details were arranged for kitchen duty and guard duty, and the Professor took three of the women and started to carefully go over the books, and files in the office. The more he read the more interested he became.

He said to Olsen.

"These men were real scientists and the whole adventure was a laboratory experiment. They wanted to know what people would do in certain situations. I am astonished at the effort they went to. And the interesting thing is that up to the time when they came out and tried to shoot us, they made no effort to harm us in any way, though they would have been pleased to have us kill each other. Everything they did was just an experiment, and I thought all the time that they were our enemies."

Olsen simply smiled. An hour later he walked up to the Professor with Miss Swanson,

"Joan and I are going to get married," he said.

"That is a real experiment, Olsen."

"Well, this seems to be a laboratory."

ON the third day after the invasion of the wasps the peaceful atmosphere changed. The scientists were almost recovered from their shock, following the wasp bites. Olsen and three of the men came into the sick room and told Ludwig to get out of bed. They walked with him down to the shore and there tied him to a tree.

"Your name is Ludwig, and you are a scientist?"

"Yes."

"Well, we have a stenographer here and he is going to take down this conversation. It may be used against you. Are you ready to talk?"

"No. You ask Weisman the questions. He is the man to talk to."

"We will talk to him later on. What was the big idea?"

"I won't talk."

"You are going to. That is why we have you here, and that is why we kept the Professor and the women away. We are going to make you talk. Do you know what torture is? I have been reading some of your books. You have spent years in Africa and hinted that they had ways of making the natives talk. The Africans are just plain, uneducated torturers compared to us, when we get started. Get me? Now, I do not want to hurt you, but I want to find out two things. Just why were we brought here, and how do we get away?"

"You ask Weisman."

"O.K. Get Weisman down here, Parker."

"Wait," cried Ludwig. "I know Weisman. I have worked with him, lived with him for some months. I do not want you to kill him and that is what will happen. There is a radio set in Observation Building No. 12, under the floor. There is a little book in the drawer of the desk there that has the latitude and longitude of this island, for it is not on any of the maps. If any of you

know anything about radio, you may be able to call a steamer, though it is out of the beaten paths."

"We will check on that statement. You go to No. 12, Parker, and we will wait for you here. Now, about the first question?"

"That was Weisman's idea. For years he has been working on a theory that if a group of highly educated people were placed on a desert island with no food, no shelter, no tools, that they would rapidly degenerate into something lower than monkeys. I told him that they might degenerate, but that they would become apes. You see, I am rather proud of the apes. So, he fixed this island up for human experimentation. Called you his white mice. Everything was going fine when you thought of those wasps. It was one thing Weisman did not think of. Of course, the whole experiment is ruined now by your lack of co-operation. That is all there is to tell you. You can check the truth by our note books. I wrote hundreds of pages myself, telling how you acted and what you said. There are over two hundred phonograph records of your conversations. And now will you let me loose? But you had better watch Weisman. He swears that he is going to kill me and take poison himself."

"We will watch both of you," answered Olsen. "After reading your books on Africa, I would not trust you one millionth of a second."

FROM that time on everything worked nicely, almost as though the programme were predestined. It may have been fate, it may have been luck, that their first S.O.S. call was picked up by the U. S. Gunboat "*Savannah*," bound for Australia. Twenty-four hours later the boat anchored off the island, and an officer and boat crew landed. The islanders were warmly greeted by a

group of young men, clean faced, well fed, in tropical whites. It was some time before the officer realized that they were the passengers of the long lost steamer, *The South Seas*. At last he managed to ask the question,

"Just what can we do for you first?"

"We want some clothes more than anything, Officer," cried a little red haired "lad." "Real clothes. We women are tired of wearing pants. We want dresses and lip sticks, and an orchestra and some nice men to dance with."

"We will do our best, Lady," stammered the blushing officer. "But perhaps you will have to wait till you get to Australia."

"There is one thing I must ask at once," said the Professor. "We have two prisoners and I have every reason to think that they are dangerous men. I think they should be placed in irons till they can be delivered to the United States."

"That is serious. What are the charges?"

"Enough to hang them, but I would rather take that up with the Captain."

A big golden haired girl took the officer to one side.

"Has the Captain a right to perform marriages?"

"He has, Lady."

"Then he is going to be rather busy. There are eight of us just waiting for someone to do that. Meet my future husband, Mr. Olsen."

But Olsen simply smiled. Under ordinary circumstances he was a man of few words.

All the world knew for some time that the world tourists were safe, but that was a wonderful piece of news to the grieving families. They were willing to wait for the details once they knew no lives had been lost.

It was some weeks later that the

party landed in San Francisco. There they broke up, but Mr. and Mrs. Olsen with Professor and Mrs. Kindard decided to go on to Washington with the two prisoners. It was thought that the four of them, with the ample records, would be sufficient testimony to convict the prisoners. At the same time the charges were so grave that it was thought best to preserve the greatest secrecy, till all the facts had been placed before the Secret Service Department. This was especially true, as Ludwig insisted on the fact that he was a German citizen and there was evidence that Weisman, in spite of his name was from England.

THE Chief of the United States Secret Service was very much impressed with the importance of the case. He delayed any personal questioning till he had time to go over all the records from the Island of White Mice. After he had read them he was impressed by the fact that publicity was to be avoided if it was at all possible. Just what charges should be brought against the two scientists, who was to bring the charges, just what interest, if any, the countries of England and Germany would take either in the defense or punishment of their citizens were the questions. He admitted to himself that it was one of the most peculiar, unusual crimes, he had ever heard of. And, yet, the charges of the American group was fully substantiated, not only by their sworn testimony, made on board the gun-boat to the Captain, but also, and doubly so, by the voluminous notes taken by the two scientists themselves.

He finally decided to have a private hearing of Weisman on a Wednesday morning and have no one there except a few officers to guard the prisoner, the four witnesses and himself. Weisman so far had refused to talk, but the

Chief was sure he would at the proper moment.

But at the last moment he found that Weisman was not going to break his silence. In spite of all precautions the psychologist had killed himself. He had taken a small blade concealed in his upper plate of false teeth and cut his jugular vein. The Chief heard the news in silence. At last he said,

"Send in Ludwig."

"Ludwig is gone, Chief," was the answer of his first assistant.

"Gone! What kind of a Service have we, anyway? What happened?"

The Assistant smiled.

"He gave me this card and said you would understand."

It was a card signed by the Chief himself.

UNDER ANY AND ALL CIRCUMSTANCES
THE BEARER IS NOT TO BE HELD IN
CONFINEMENT. NO. 4.

"But that is Taine's number!" cried the Chief. "This man, Ludwig, is a criminal. Taine was on the case, and it looks as though he killed Taine, and used the card. It is genuine, as far as my signature is concerned, but how did Ludwig get the card, and why, in the name of the Seven Sacred Caterpillars, did you do this without consulting me?"

Before he could reply the Chief was called by the telephone on his desk. He listened, said, "Yes," and turned to his assistant.

"That is Taine now. He is on his way up."

"Where has he been?"

"Howinell do I know? He was put on this very case months ago and I never had a word from him."

Just then the man they were discussing entered the room. He was a very little man, with a childish face, dressed in plain but elegant style.

"Hello, Chief!" he called smiling.

"Hello yourself. Where have you

been? How did Ludwig get your card? What have you been doing on this case, anyway? Tell me all about it as quick as you can or I am going to break you in two!"

"Now, don't get excited, Chief. Everything is all right. Of course, I am sorry about the suicide of your prisoner, but I guess your men will learn to really search a prisoner some day. They should have known that he was desperate. He was one of the most peculiar, decent criminals I ever met."

"Did you meet him?"

"Did I? Why, I know him just as though I were his brother. I knew him well enough to impersonate him, only he was too big for me to try it."

"How about Ludwig?"

"Ludwig is dead."

"Dead? You make me laugh. He escaped this morning. Used your card."

"No, Chief. He is dead. Suppose you let me tell you about it in my own way."

"Go on; but you had us worried sick. I thought you were on the case. I trusted in you."

"Sure. You told me to see to it that the tourists were not harmed. They are all right. The fact is they had a good time, most of them, something they can talk about the rest of their lives. Some of them even married. It was this way. I looked up Weisman and I could not see any way of handling him. He was a wise one. So, I went over to Germany and contacted with Ludwig. I did a little female impersonation stunt, and he fell for it. Even promised to marry me when he came back from his trip with Weisman. Of course, he was bluffing, but so was I. But it gave me a chance to study his mannerisms rather carefully, and I found out all about his plans and where his papers were. We went on a trip through the Black Forest and he had a stroke and

died. Honest he did. I had nothing to do with that, but I changed clothes with him, and it was the unknown adventuress who was buried, and I came back to Ludwig's home as Ludwig. After that it was easy. Weisman and I kept on corresponding and finally we met in London. I suggested that we stage a quarrel and both get killed. As we went into the river, or they thought we did, the bodies were never recovered. And then we went to the Island and waited for the tourists. I did not know what was going to happen, but I was sure that if I was there, I could take care of them and help them when the time came.

"But you didn't do a damn thing!"

'DON'T be so sure of that. I had a hard man to deal with, and, anyway, I had to wait till the proper time came. The wasps drove us out, but it was Taine who took all the cartridges out of the revolvers, so, when Weisman went out firing at the tourists all he did was to keep on pulling the triggers of his revolvers. He was dead shot, great with either hand, and I guess right there I saved six or eight lives, anyway.

"Perhaps you could have done it better, Chief. All I know is that I brought them back alive. In fact, I got hurt worse than any of them. I was near death for three days from the wasp stings. And I learned a lot about human nature and monkeys and white mice, and it was almost a vacation for me.

"And it all turned out nicely. The

college bunch had their trip, and some fell in love and married. Weisman is better off as he is, because it would have been a great blow to his pride to have to stand trial and go to prison and all that sort of thing. You have a wonderful story to put in your new book; so, I think everything is swell. And now I must be going. I have invited the Professor and Olsen and their ladies to take dinner with me. Bet they will be pleased to take dinner with the world's greatest detective."

The Chief put his hand to his forehead and sighed.

"It is too much for me, Taine. Thanks for all you did. Send me a bill and I will see that you are paid. But next time—"

"Not another word, Chief. I know how you feel. Perhaps next time when you send me on a case you will feel sure I am taking care of it for you. Let me hear from you when you are in trouble. Just wire me, Taine of San Francisco. I will be at home for the next month with my wife. I want to buy a new pup. Sort of like them when they are young. Like me in a way. Have a habit of going around—you know the rest."

"One thing more, Taine. Did you learn anything about women on this trip?"

"Nothing new, Chief. You see, Mrs. Taine has taught me a lot. Great woman, my wife. I guess she is the reason for my being a detective, and spending so much time, away from home, helping her finance her Missionary Society."

THE END

The Thing in the Woods

By FLETCHER PRATT and B. F. RUBY

This is a story about cellulose and this apparently futile subject for a narration leads to a most interesting story touching on the chemistry of this substance the basis of so much of nature's structures. Cellulose is everywhere and this seemingly inert substance is at the basis of some of the most violent and powerful action of our world's nature.

R ALPH PARKER rubbed his fingers across goggled eyes. Surely he had been mistaken. It must be some freak effect of the ghastly luminescence given off by the ultra-violet lamps, some trick of reflection or refraction in the corner of the goggles he always had to wear to protect his eyes in the tomb-like depths of the fungus-research laboratory, two levels below the ground floor of the Central Packing Company's building.

He walked over to the fungus bed and looked again. The tiny puff-ball no bigger than a pea, gave no further sign of movement. To be sure, it was out of alignment with the four other mutants in the same bed. But there was nothing unusual in that. He'd been experimenting with the production of new edible puff-balls too long to believe that one could predict anything about the results one was to obtain.

"You simply set up mutations and leave the rest to nature," he had expressed it to his assistant, Barkeley, one day, when, after they had been experimenting with *Agaricus giganteus*, they got instead of the expected giant mushroom, a collection of tiny purple pinpricks, almost as impalpable as dust, which sailed spore-

like through the air of the fungus laboratory to settle on everything and there reproduce themselves. After that experience, they had to close the laboratory for a month and kill every living thing in it to get rid of the purple pin-point plague.

But this time. . . . He consulted the card behind the new effort, musing on its history. And then it happened again.

The little grey-brown ball turned over; at first tentatively, as if trying its paces; then more rapidly, rolled to the side of the fungus bed, and swung back and forth, seeking a way to surmount the wooden rim of the box.

Ralph Parker experienced a thrill of pleasure run down his spine. A plant mutant possessing the power of locomotion! The first of its kind in the history of science. He visioned the report he would make; then bethought himself and hurried back for a pair of magnifying goggles. It would be important to get every detail of the life-history of this organism.

When he returned, he found his assistant, Barkeley, chasing the spheroid around the bed, foiling its attempts to roll with a piece of cardboard. Amusement and incredulity were written on his features as he exclaimed:



Another tentacle shot out! And he too was dangled in the air while the fungoid monster waved his fan head in a perfect fury.

"Do you see what you've got here, Ralph?"

"Do I? I'll say I do! It's the most important thing in the history of plant biology. A fungoid mutant that has the property of motility!"

"Cripes!" his assistant ejaculated, "that ain't all. The damn thing can see!"

"What makes you think so?" Parker asked, smiling.

"Why, it was rolling and I stuck this cardboard in front of it and it turned away. I did it again and it turned again. And kept on doing it."

"If I thought you were right, I'd begin to be afraid of the thing, even if it is the size of a pea. But I guess it's probably only photo-sensitive."

"You mean it's heliotropic—attracted to the light—and turns away from the cardboard's shadow?" Barkeley asked.

"Yes."

"Yeah?" Barkeley insisted. "Maybe you can account for the fact that it acted the same whether the shadow of the cardboard was toward or away from the thing."

"Good observation," Parker complimented his assistant. "And now I'll tell you what I want you to do. Fix up a bed for it on the roof. You can use some stakes and a width of fine wire-mesh so it can't escape."

WHILE Barkeley constructed the bed on the roof, Parker made a thorough examination of the fungus. It was practically spherical, just slightly elongated, and at one end was a fan-like protuberance with green gills.

"External lungs," Parker said to himself, "and the green gills undoubtedly contain chlorophyll so that it can convert the carbon dioxide of the air into carbohydrates."

"But I wonder where it gets its nitrogen?"

This observation was prompted by the

absence of roots, what seemed to have been the root having almost completely atrophied. This was very puzzling and there was also a fine, almost invisible line running around its middle. For the life of him, Ralph couldn't figure out what that could be for.

The notes which Parker kept, during the first few days of the thing's existence in the bed on the roof, reflected his amazement at the strange development of the mutant.

"The expectation that sunlight would accelerate growth," Parker wrote in his note book at the end of the third day, "seems fully justified. It is growing rapidly, evidently building its cellulose tissues by fixation of atmospheric CO₂ like ordinary plants, but the source of its nitrogen-supply is obscure. The organism is already the size of a grape and its rolling speed is astonishing. It seems to seek sunlight and when in a shadow, it pulls in its fan-like head and rolls rapidly into the sunlight. And it invariably rolls toward the *nearest* patch of sunlight!"

On the fourth day, his notes read:

"Hitherto, I have not touched the fungus, fearing to injure it. But to-day I palpated it with my fingers. It has really a horrible feeling—exactly like human flesh but cold! Like a corpse! I could not suppress a shudder when I touched it. The median line has now developed into an equatorial pouch. What can the purpose of this be?"

The thing was about a week old when Barkeley dashed into the laboratory where Ralph was sitting at a desk. He had just set the movable slide on the slide rule in his hand and was gazing at it thoughtfully.

"Come on up to the roof and see what our little friend is up to now!" he invited, visibly excited.

"Our little friend," Ralph said slowly, looking up from the slide rule, "is going to be exactly as tall as the Central Packing

building in one month, if it keeps on growing at the present rate."

"Yeah, if!" laughed Barkeley. "So would you if you had kept on growing as fast as you did when you were a baby."

"Why didn't I?" Parker insisted seriously.

"I suppose there's something that stops growth, isn't there?"

"Exactly. At least it's supposed there's a growth-arresting hormone. But suppose the fungus—oh, well we won't worry about that! What do you think you've discovered now, Columbus?"

"Wait till we get up to the roof and I show you," Barkeley promised, mysteriously.

When they arrived at the roof, Barkeley began snatching handfuls of empty air with all the appearance of a man suddenly gone crazy. At last he approached the fungus with his hand tightly closed, then with his other hand he extracted a wriggling fly and presented it to the thing.

"Well, I'll be dumb-jiggered!" Ralph exclaimed as he saw the fungus shoot out a tenacle from its middle and sweep the fly into its equatorial pouch. "It's insectivorous!"

After that Ralph realized that its nitrogen supply was acquired in this way and he kept Barkeley busy supplying the fungus with insects and caterpillars. It seemed to have an insatiable appetite for them and it now began to have an odor of strongly ammoniacal character. From this fact Ralph concluded that it probably could not digest proteins like an animal; they were evidently merely split up by putrefaction in the pouch and the thing just soaked up the ammonia and other soluble compounds produced, just as a plant would.

Every day Ralph measured its growth and, so far, he could see no reason to revise his startling prediction. It was now as big as the fruit of an egg plant and

while its actual size was not alarming, its *rate* of growth was astonishing. And those central tentacles—

"WELL!" Ralph said to himself. "If that thing were as big as I and it snatched at me with one of those tenacles, I'd say my prayers!"

Routine work had piled up in the laboratory while Parker and his assistant had been playing with the fungoid mutant of which their lord and master, the General Manager of the Central Packing Company, knew exactly nothing. Fascinating though it was, they were obliged to confine themselves for a while to necessary lab. work. But each evening they went up to observe it before going home.

Then one night, as they watched in the dusk, they heard a squeal and hastened closer just in time to see the fungus chasing something. It was a mouse! Somehow, the poor thing had strayed into the bed and it didn't have a chance against the hungry fungus. This way and that, the fungus rolled swiftly after the desperately squealing mouse. And finally, after chasing it across the bed, the fungus, now the size of a watermelon, steam-rolled the frantic rodent to death and swept it into its digestive pouch.

"Well," remarked Barkeley, "that solves the feeding problem anyway. If it'll eat a mouse, we can feed it chunks of meat."

"Yeah," replied Parker. "But what worries me is that it's increasing in size so rapidly. It might get dangerous!"

They had to enlarge and strengthen the pen and provide a trough into which scraps of meat could be thrown. Ralph was glad he had completed this job when he received, one Thursday, an invitation from the boss to spend the week-end at his summer home. Barkeley was invited too and both knew it was a royal command which could not be refused. So

they had to leave their interesting fungus until the following Monday.

Before starting on Thursday, however, they loaded up the trough with meat scraps. Not merely a few handfuls, but a large wooden pail full to the brim.

"Can't understand why it has such an appetite for nitrogenous food," Barkeley commented. "Its tissues are cellulose, aren't they? And it gets the carbon from the CO_2 in the air."

"Not all cellulose. All plant forms need some nitrogen. And while this thing probably doesn't need much, its digestive apparatus is so crude, it has to eat enormous quantities of meat to get the little it requires."

This was Ralph's explanation. But he wasn't at all sure it was right. There were so many things about this carnivorous fungus he didn't as yet understand. It was mysterious. Yes, and a little alarming.

The manager was a perfect host and ordinarily Ralph and Barkeley would have had a gloriously hectic time. But all the time while they were taking a dip, or playing tennis, or sipping iced tea on the cool terrace, they were thinking of the strange thing back there on the roof.

"Will it never end?" Ralph thought wearily, as he and Barkeley endured the pleasures provided for them. They held out nobly until Sunday night. Then, after several hands of bridge, Ralph yawned and suggested that they had better turn in, as it was essential they get to the lab. early next morning. He looked significantly at Barkeley, who took the hint and seconded the suggestion strongly.

At three o'clock, Ralph rapped softly on Barkeley's door.

"HEY, dopey, get up," he whispered. "Let's scram and apologize later. I just thought of something about that thing. Not worrying exactly, but——"

They dressed, let themselves out noise-

lessly and in a few minutes were burning up the road toward town. Barkeley, who had a bad case of accelerator-foot anyway, was making the big car do eighty or better. But Ralph, normally nervous at high speeds, hardly noticed. He was thinking of something and the more he thought about it the more anxious he got.

"I'll bet I know what's worrying you," Barkeley spoke for the first time as they crossed the town line and he reduced the speed to legal (?) limits. "I just thought of it, myself."

"What?"

"The growth factor!"

"That's it," admitted Ralph. "Why, the damn thing must be seven feet high by now, because it was three feet Thursday night!"

"Cripes! Supposed it busted out of the pen and fell off the roof?"

"That's what I'm afraid of. If it fell on anybody——"

He did not finish his sentence because at this moment they pulled up in front of the plant. Ralph started to get out of the car to unlock the gate to the shipping yard so they could drive in to the employees' garage, when he noticed the gate was ajar. Like a flash he was out of the car to examine the lock. He saw that the lock was intact but the wooden picket to which it was affixed had been splintered.

"Either a truck has backed into it," he started to say to Barkeley, "or else——"

But Barkeley was headed on a run for the shipping platform.

"Holy fried cakes!" he yelled. "Look at this window!"

Following him, Ralph sprinted to the platform and surveyed the ruin of one metal-frame, wired glass window. Shattered, its metal mullions torn loose and bent, it looked as if a freight car had plunged through it. And clinging to its sharp edges of metal and glass were bits of brownish-white, vegetable tissue!

Both knew well enough what that meant and they mounted the stairs quickly in silence. And when they reached the stair-shaft penthouse on the roof, the open door, which was a swinging, metal-clad fire door, confirmed their suspicions.

"Well, it's gone all right!" Barkeley exclaimed.

"Yeah, of course," replied Ralph, as he surveyed the wreck of the pen. "But how did it get the penthouse door open? And where in hell is the watchman?"

"Shhh—! What was that?" Barkeley whispered.

As he spoke there was audible a faint groan. Listening in silence they heard it again and it seemed to come from the front parapet overlooking the street. Hastening to the front they discerned in the dimness the limp figure of the watchman lying across the tile coping of the parapet wall. His flash-light and revolver lay on the gravel roof beside him.

"Jake!" Ralph cried, running to him and pulling him back. "What's the matter? Are you hurt?"

There was a frightened look in the man's face and he was obviously relieved to see Ralph's familiar countenance.

"I DON'T know exactly what did happen, Mr. Parker," he said slowly, speaking with difficulty as he was evidently in pain. "I came up to the roof about four-thirty to punch the watchman station, when I heard a racket in that pen where you had that big fungus. I'd just started toward it when the whole pen seemed to rise right up and that thing was coming toward the penthouse. If I'd only dodged back and slammed the door it would have been all right. But I was rattled and pulled out my gun."

"Did you fire?" Ralph inquired.

"Emptied my gun at it. But say, it had no more effect than a pea-shooter. It just came toward the door, rolling like, and when I tried to get between it and

the door, it reached out and grabbed me 'round the waist. Must have broke a rib from the way it hurts. But I was so scared I didn't hardly notice. It was awful, Mr. Parker, being pulled up against that thing—like a corpse it was, so cold, and it smelled something awful."

"But you got away evidently."

"I pulled and struggled like a madman. And then, all of a sudden its hand, or whatever you call it, broke right off. I must'a sprawled in a heap and was knocked dizzy. Because when I came to, the thing was gone."

"How'd you come to be up in front?"

"Why, I guess my leg was broke when I sprawled and I dragged myself up there to try to get help. But nobody came along until you fellows came."

Meanwhile, Barkeley had been searching the roof with the flashlight and returned now with a slimy object about a foot long.

"The tenacle segment, eh? Good! We're going to need that, I think," Ralph approved. "Take it down to the lab. and I'll phone for the ambulance. Then we'll have to notify the police."

When Barkeley came up from the lab, Ralph met him at the ground floor, watch in hand.

"You jump in the car, Bark, and drive to the police station, while I wait for the ambulance. You've got a good chance of catching it if you sort of spiral out from the building—if this all happened at 4.30 it can't be far away. And don't tell the cops it's a wild mushroom that's escaped, because they'll put you in a padded cell."

At the police station Barkeley found a sleepy desk-sergeant who wanted to write things on a large white sheet of paper, names, addresses and other "red tape."

"MY God, man!" Barkeley cried explosively. "Do you realize that thing's loose on the street now? It may

be crushing women and children to death right this minute!"

Galvanized into action by Barkeley's angry burst, he jabbed a bell summoning two cops with sawed-off shot guns, and briskly ordered them to take Barkeley with them in the scout car and round up the thing. One of the cops drove, while Barkeley and the other cop sat with riot guns in hand ready to leap out when they spied the beast. It was still too early for there to be many people on the street, but what few were out stared curiously after the scout car as they circled in swiftly widening circles about the Central Packing building.

"We could easy miss it this way," one of the coppers growled when they were five or six blocks from the building. "The Sarge ought to have waited for an alarm."

"Yeah?" said Barkeley. "And have it kill half a dozen people first?"

"Phooey," the cop sneered. "It ain't no worse'n a lion, is it? And I remember when old Leo got out of the Zoo he didn't do nothin' at all—just hid in a corner like a scared kitten, till they come an' got him."

"What in hell is it, anyway?" the other asked.

"Giant agaricus," said Barkeley, suppressing a grin as he wondered what they'd say if he told them it was a mushroom. "It's seven feet high and it'll mind these riot guns about as much as an air rifle."

"What are we goin' to do when we find it then? And how in hell are we going to locate it?" was the somewhat less assured response.

"Run it down with the car if we can. And as to finding it, if you notice a rotten smell, we are probably near it," was Barkeley's reply.

They were on the outskirts of the town before Barkeley's nostrils detected the tell-tale emanation of the fungus. Even

in this small town the circling process had taken nearly half an hour and it was now broad daylight. The view was less obstructed here, city buildings having given place to scattered farm houses and green pastures on the gentle hillside that led to a thinly wooded strip.

The circling process could not be continued any longer and Barkeley had to be guided by his nose. Observing that the odor was getting fainter he directed the driver to turn around and was gratified to notice that after going a quarter of a mile it grew perceptibly stronger. As they came to a fork in the road, Barkeley directed the driver to turn. He wasn't sure, but he thought he saw a commotion in the pasture near a farmhouse.

He strained his eyes and the next moment shouted to the driver:

"Step on it! I see it in that pasture and it's after some animal!"

The little car bounced over the rough road as it shot ahead when the driver jammed his foot down on the gas. Leaning out the side, Barkeley was ready to jump when they got near enough.

"**H**ERE!" Barkeley shouted. "Stop her here!"

He leapt from the car and all three stood petrified for a moment by the ghastly spectacle they witnessed.

An awkward brown calf, terror in its appealing eyes, was being chased this way and that by the huge, rolling fungus. Bleating wildly, the helpless animal dashed madly to and fro, but the huge brownish-white ball rolled rapidly in pursuit no matter which way it went. Steadily the pursuer gained on the calf, despite the victim's frantic efforts to escape; the animal's agonized bleats became like the wail of a terror-stricken child. Then it stumbled . . .

In an instant the great bulk of the spherical fungus rolled upon its hind-quarters. Inexorably the heavy ball

rolled forward toward the calf's head and the sound of the crushing bones could be heard even where Barkeley and the cops stood. The cries of the helpless beast were terrible, like a gasping scream, as the thing rolled slowly forward, squeezing the animal flat.

Seemingly the fungus knew its victim was dead, for now it rolled off and waved its outspread fan-head in a gloating madness of blood thirst. The great thing, seven feet in diameter, despite its grotesque spherical shape, seemed like a blood-crazed cannibal; a thing of cellulose, yet strangely like some colossal savage ancestor of man. It was grasping the mangled calf with its powerful tenacles now, lifting it toward the equatorial pouch—

But Barkeley was tugging frantically at the wooden rails of the fence, pulling it apart, while he yelled to the men to get the car headed for the opening he was making. Obeying him, one of them got into the car, faced the car toward the opening and started forward. Barkeley had the fence down but the car lacked sufficient impetus to plough through the ditch. The engine died.

"Damn it, man!" Barkeley swore. "Why didn't you get a start? Try and back her up and——"

As he spoke, he heard a gun go off with a terrific bang. He looked up to see the other man, who had approached the fungus with his riot gun and fired from a distance of a few feet. As he looked the unfortunate fellow was snatched up by the swift, powerful tenacle and drawn against the nauseous pouch. Before Barkeley could utter a cry of warning, the other policeman leapt out, riot gun in hand, and ran to his companion's aid. He was right on top of the fungus when he fired but the heavy charge seemed to do no more than tear off a little fleshy bark.

Another tenacle shot out! And he too

was dangled in the air while the fungoid monster waved his fan head in a perfect fury.

It had dropped the mangled calf and it seemed trying to decide which of its three victims to engulf.

Would it hurl them to the ground and crunch out their lives too?

Barkeley did not wait to see—

LEAPING into the scout car, he threw it into reverse and backed up to get a start. Then, putting it into first gear, he jammed down the accelerator and let the clutch in. For one sickening instant as the car plunged forward, the front wheels dug into the mud of the ditch and the rear wheels began to spin. The fungus still dangled the helpless policemen in the air but any minute it might dash them to the ground and roll them to death.

Then the rear wheels began to take hold again. The car jerked forward up the bank of the ditch and through the fence opening—

Would the thing retreat? he wondered as he bumped across the pasture toward the flesh-maddened monster which thrashed its victims about in the air with its powerful, slimy tenacles. It was the only chance. He remembered how it had fled from the cardboard in the laboratory pen. Maybe it would flee from the approaching car.

Reaching smoother ground, the car gained speed and bore down on the fungus with increased effect. Closer and closer. But still the agaric didn't budge! At last, when the car was hardly ten feet away, the thing dropped its squirming victims, folded its fan-head, and rolled swiftly away—

Swerving abruptly to avoid running over the men, Barkeley continued pursuit. But it was useless. On smooth ground he might have been able to run it down. But on this bumpy field, the odds were all in favor of the fungus. Gradually gaining

distance, it reached the opposite side of the pasture where Barkeley saw it crash through the fence and disappear in the woods.

Returning, Barkeley found the two policemen ruefully brushing off their clothes, unhurt except for minor bruises where the tenacles of the fungus had encircled their bodies.

"Back to the station," Barkeley cried. "And step on it! That thing will come back and the citizens have got to be warned to stay indoors until it's caught."

But on the way back, Barkeley noticed that the streets were deserted. Although it was the hour when the citizens would normally be on their way to shops and offices, not a soul was to be seen.

At the police station he found Ralph waiting for him.

Barkeley and the policemen told their exciting story while police reporters interrupted with curt demands for answers to questions, jotting down notes on scraps of paper and then scampered to telephones.

"We ought to have a radio-warning broadcast, Ralph," Barkeley advised in an anxious voice.

"It has already been done," Parker told him. "Didn't you notice that nobody's on the streets?"

"Oh yes, I did," Barkeley admitted. "But can't we get out the reserves and corner the thing?"

"No good!" exclaimed Ralph. "You ought to know from your experience policemen and guns are no good against that thing. We've got to wait for it to return and when it does I'm ready for it!"

His remark was overheard by Chief of Police, Harry Parsons, who had listened with a fishy eye to Barkeley's and the policemen's tale. Ralph had gone over the Chief's head in asking the Mayor to send the radio-warning and Harry Parsons was plenty sore. It was plain he

thought the whole thing much ado about nothing.

"Listen, Parker," he said, with an undisguised sneer. "When the police department needs your help it'll ask for it. Now get out of here and stay out or I'll lock you up."

"O KAY," said Ralph cheerfully. "I was going anyway."

"Where to now?" inquired Barkeley as they issued from the police station.

"Not far," Ralph said, smiling. "Just around the corner, in fact."

To Barkeley's surprise, Ralph led him to Fire Headquarters where he flopped into an easy chair near the switchboard and offered Barkeley a cigarette.

"See that apparatus?" Ralph said, pointing to the motor-pumper engine which stood out in front. "And the tank truck?"

"Yeah, but what—?"

"That's what we fight the thing with, when it comes back for lunch."

Barkeley knit his brows. He was accustomed to Ralph's mystifying ways but this was a little too much.

"What's in the tank truck?" he inquired, completely baffled.

"Nothing," replied Ralph, succinctly. "But there will be in a minute. See that Standard Chemical Co. truck backing up there? Watch and see."

As Barkeley watched, several men began to shovel into the manhole of the tank truck some black crystalline substance. And then they hoisted several steel drums up on the tank truck and ran their contents, water-white and slightly fuming, into the tank.

Barkeley's quick wits began to get the idea.

"I see," he said, thoughtfully. "You did a little experimenting with that tenacle segment, I guess."

"Right," said Parker. "And I also anticipated that Chief Parson would coun-

term and that radio-warning. See the people out on the streets?"

"The damned fool!" Barkeley ejaculated. "Why it's murder to let people out on the street, while that thing's loose. Think of it. Children will be on their way to school——"

"I know," Ralph replied, shaking his head. "The *Times* police reporter will phone the switchboard here if anything breaks. And we can only pray that we'll get there in time to prevent loss of life."

"I think I know what is in the tank truck now," Barkeley hazarded. "Will you tell me if I'm right?"

He scribbled a chemical formula on a piece of paper and passed it over to Ralph. The latter glanced at it and nodded.

"GOOD guess," he commented. "Of course it's an ordinary chemical known as a solvent for cellulose. But I was really amazed the way it ate up scraps of that tenacle segment. It was like magic."

As he finished speaking, the man at the switchboard looked up.

"McNamara just phoned," he informed Ralph. "The Chief's got men out with riot guns, going through the woods."

In view of the fact that the woods referred to consisted of a thin strip of grove dividing the farm lands from a newly developed residential section to the north of the town, this seemed particularly idiotic to Ralph.

"Bright idea," he remarked. "If the thing succeeds in squeezing through the woods, it'll probably roll right down Union road."

Barkeley looked at his watch.

"That'd be bad. It's just about time——"

He was interrupted by the staccato voice of the man at the board.

"The thing's reported seen near 22 school. Cruiser No. 4 phoned from Union and Beverly road."

As he spoke he sounded the alarm and by the time Parker and Barkeley were seated in the Battalion Chief's car the firemen were already at their places on the pumper and tank truck.

Word must have spread that the thing was loose again for they had little need of their siren in the nearly deserted streets. It took less than three minutes to arrive at the point from which the cruiser had phoned.

The sound of a shot, followed by several more, told Ralph the location of the fungoid.

"The school!" he shouted.

The Battalion Chief whirled his car around the corner, followed more slowly by the heavy apparatus. As they approached, Ralph saw to his relief that there were no children in the street or yard. Evidently they had been able to escape. But the sound of another shot made him leap from the car and motion to the firemen to follow.

Dashing to the back of the school he saw the monster waving the fan-like protuberance at the top of its huge spherical body and trying to climb the steps of a rear entrance. At the top, vainly trying to open the heavy door and shrinking in deadly terror from the tenacles reached out for her, was a little girl.

"Why don't they open that door and get her in?" he heard some one shout.

"They can't," a patrolman answered as he withdrew a shell from his smoking riot gun and inserted another. "They don't use it and it's rusted shut or something."

The little group of police were hysterically firing as rapidly as they could into the monster's bulk. But they might as well have been firing at a lumber pile.

"If they only get that hose here in time," Ralph prayed silently.

As the long tenacles stretched out toward the little girl, Ralph heard the hoarse warnings that were shouted, and

heard the sound of hammers inside trying to break open the door. And then two firemen dragged the hose around the corner and held the nozzle while the hose swelled and jerked and then began to spurt a dark fluid.

"AIM at the head," he called to the fireman. "That fan-like thing."

Amazement was written on the faces of the policemen as they saw the stream of blue-black fluid hit the fan-like head.

Before their eyes, they saw it melt, dissolving in the dark liquid. And as it did so, the tenacles suddenly ceased their movement. The direction of the powerful stream was altered now at Ralph's direction, attacking its middle and gradually

the whole thing melted like a lump of ice cream on a hot day, dwindling until there was nothing left but a pile of nauseous jelly.

"That ain't water," Ralph heard the voice of Harry Parsons exclaim. "What is it?"

"Ammoniacal cupric oxide," Ralph answered briefly. "The thing was a cellulose beast and the only way to kill it was to dissolve it."

"Listen, you!" the Chief warned him. "If you got any more baby Silly Looses up there on your roof, yuh better kill 'em off right now."

"Don't worry," Ralph replied. "I'm all through fooling with cute baby fungoids!"

THE END

What do you know?

1. In what phase of travelling has man's advance been trivial? (See page 10.)
2. How is the atmosphere stratified into layers? (See page 11.)
3. Ether waves follow straight paths; how do radio waves follow the curve of the earth's surface? (See page 11.)
4. How was a change instituted in atomic chemistry about the year 1870 or a little earlier? Give an example of it. (See page 11.)
5. Give the functions of the air blanket in regulating the changes of temperature of the earth. (See page 13.)
6. What would be the principle in operating electric conductors for a one hundred percent efficiently? (See page 18.)
7. How could you express the rate of generation of energy? (See page 18.)
8. What thought in reference to the soul has been preserved by the Mexican Indians and by other aboriginal people? (See page 62.)
9. What six perils were to be encountered by the dead, according to primitive Mayan belief? (See page 62.)
10. What is the name of the dawn goddess? (See page 65.)
11. What is the Aztec tradition referring to a block of vultures circling in the sky? (See page 65.)
12. What is the Greek name of the moon goddess? (See page 70.)
13. What is the meaning of photosensitive? (See page 114.)
14. What is the meaning of heliotropic? (See page 114.)
15. What is supposed to arrest animal growth? (See page 115.)
16. How could a rootless fungus obtain introgen to supply its system and enable it to grow? (See page 115.)
17. What is the solvent for cellulose? (See page 126.)
18. What indications of danger or impending injury to apparatus have to be watched for in experiments with high-speed dynamos and the like? (See page 123.)
19. What substance is a non-combustible insulator unaffected by any probable rise of temperature? (See page 125.)
20. What may we call 'time,' taking it as a dimension? (See page 126.)

When Time Stood Still

By PHILIP JAQUES BARTEL

This story, whose scene is laid in modern Russia, gives a picturesque description of advanced work in science and tells of the results attained. It has a great deal of atmosphere and, while it is not the first story using a Russian motif, it is very distinctive. The author has published a number of stories and we are sure that this will rank as one of his best.

THREE men of science, hearts trembling with hope, stared at the gigantic mechanism before them, with eager eyes.

One question was in all three minds. Would this, their latest effort, also result in failure?

Slowly the powerful steam turbine began to function. As they watched, the speed of the rotor of the Two-Pole Turbo-Alternator increased, from Three Thousand Revolutions per minute to Ten Thousand. Fifteen Thousand to Twenty Thousand.

A white vapor appeared slowly filling the large room. At this sign of danger, the youngest of the men present, dashed to a switch. Before he could break the circuit, his associates uttered a cry of warning.

It was too late. A dazzling light burst forth in their very faces, and the smell of burning insulation accompanied by the familiar odor of ozone, attacked their throats.

When the flames had been extinguished and the air cleared, they examined the ruins of the turbine.

Peter Mikhailoff, the eldest, pushed back a stray lock of his gray hair and sighed.

"Gentlemen, again we must begin anew." He turned to the young engineer at his right. "Earl, I had hoped to show you a successful demonstration, but

once more as you see we have failed."

Before Earl Lyons could reply, the third member of the trio, Vassily Khalin, Vice-Commissar of "SOVERG," the Bureau of Energy, impatiently addressed him:

"Comrade Lyons, the Soviet Government underwent considerable expense to bring you to Russia. You've seen our problem. What solution can you offer?"

Earl scratched his blond head and replied: "At Schenectady, in the General Electric Laboratories, we tested the maximum capacity of steam turbines with almost the identical results. We've had the greatest difficulty preventing the destruction of the rotors of large turbo-alternators. There were two factors to consider.

"First, the enormous stress set up at peripheral velocities in the neighborhood of 50,000 feet per minute and upwards. Second, the danger of injury from high temperatures due to friction."

"How did you overcome these handicaps?" snapped Khalin.

EARL looked at him curiously. The Russian was fast losing patience. Mikhailoff smiled and patted his shoulder. "Quietly, my friend this is no time for irritability. Be patient. Our American colleague is here to help us."

Khalin smiled sheepishly and offered



Earl entered the cage, with Vassily Khalin following closely behind. Nervously they stood waiting for the experiment to begin.

his hand to Earl: "I'm sorry, comrade, but we're almost unnerved. If we don't show some progress soon, we'll be accused of sabotage."

Earl knew what that meant. Court-martial and a rifle squad.

"I think I see an answer," he remarked. "What we need is adequate ventilation of rotors. In our next model we'll install chilled water ducts to prevent overheating, and for our insulation, we'll use mica which is non-combustible."

Khalin's eyes lit up with hope. "If it works, we'll have a series of twelve generators in operation, in three months."

Mikhailoff's wrinkled face beamed with satisfaction. "Then, my friends, we shall see—what we shall see. Fifty years of study and research, and I am almost ready to grasp the fruits of success."

"I still remember the superstitious look on Alexander II's face, when I whispered my idea to him. Then it was but a dream. He readily gave me funds to continue, and when in 1890 Alexander III threatened to discontinue his support, a word in his ear, changed his mind."

"Romanoff Czars gave place to Krensky, Trotsky, Lenin and Stalin. After hearing my plans, all gave a helping hand. Political control means nothing to me, as long as my work is undisturbed."

Earl listened to the old man's enthusiastic speech, with admiration. What obstacles he must have overcome?

Khalin shrugged his shoulders. "Tell me comrade Peter, was the secret police of the Romanoffs as effective as our own Gay Pay Oo?"

Before Mikhailoff could answer, a tinkle of laughter was heard. All turned to see who had dared to intrude.

Standing in the doorway, modishly dressed, was an attractive brunette.

Khalin's face took on an unnatural pallor.

Earl smothered an exclamation of annoyance. Mina Boyarsky, agent of the dread G. P. U., had dogged his footsteps ever since he had entered Russia. She had persisted in seeking his company. Perhaps if she had displayed an iota of maidenly shyness, he would have shown greater interest in her. But her official position and her modernistic forwardness repelled him.

"Come in, my daughter," invited Mikhailoff.

Khalin hoped she hadn't heard any of his careless remarks.

"Good day, comrades," she smiled. "And how is our American engineer, this morning? Has your infinite experience with Edison in America and Vickers in England helped you here?"

Earl bowed to hide a grimace of embarrassment. "You are here at the right moment, Miss Boyarsky. I was about to ask Dr. Mikhailoff to remove the mask of mystery from our operations and let me in on his secret. Perhaps you'll back up my request?"

Mina Boyarsky approvingly looked at his tall, athletic body, his well-shaped, fair head. This American engineer couldn't be very intelligent, she mused. He was too good-looking.

"My orders from the Central Bureau," she replied, "are to act purely as a news reporter, not an advisor. Comrade Mikhailoff is free to do what he pleases."

The old man cleared his throat: "In 1879, I completed a course in Physics at the Kaiser Wilhelm Institute in Berlin. This University later graduated two of the world's foremost scientists. Lorentz and Albert Einstein. I returned to Russia entranced with one idea. I could not accept the general explanations of the relationship between space and time. The commonly known three dimensions, length, breadth and thickness, were easily

understandable. But the fourth dimension, that of time, seemed to have been sadly neglected by the authorities of my day. I determined to search for myself.

"I know you gentlemen are following me easily, but Mina may be having some difficulty. Permit me to elucidate. Let us assume a motor car or any other moving object, as at rest at a given spot. We know that it is ten feet long, four feet across and six feet high. There we have the three ordinary dimensions of the automobile. To the layman, we have given all the description necessary. But to the physicist, our description is incomplete. We have omitted to give the necessary fourth dimension. *When*, or at what time, this automobile was resting at the given spot!"

Mina Boyarsky's large brown eyes dilated with interest.

Vassily Khalin looked mildly interested, but Earl felt that an astounding announcement was imminent.

Mikhailoff continued. "You see, Mina, if the motor car was here at twelve o'clock noon, the other dimensions have a value. But if the car was elsewhere at that time, the value of any further dimension is nil. Every object must have this auxiliary dimension or we cannot grasp its entire meaning. But let me go on.

"Aided by plenty of funds, at the turn of the century, I received my first encouragement. I constructed a small turbine generator and by using its voltage to bombard an insulated electric field, I succeeded in robbing an object of its fourth dimension! For this object, time had stood still!"

Earl and Vassily stared at the old man in amazement.

Khalin grasped his thin shoulder. "Do you mean it vanished from sight?"

Mikhailoff nodded his head. "Not only became invisible to the eye, but when I attempted to locate it with a hard

rubber rod, I failed to even *feel* its presence!"

The American was amazed. "You mean, you robbed it of its first three dimensions, don't you?" he cried.

"Correct, my son. It all depends on your point of view."

Mina felt for her note-book and filled line after line with her neat handwriting.

A puzzled expression came over Earl's face. "But, I don't understand. Why do we have to bother with steam turbines? Why not tap the tremendous power of one of the new developments such as at Dnieperstroy?"

Mina raised her head from her notes and interrupted. "I can answer that, Comrade Lyons. The Central Committee decided that our project be kept secret. The importance attached to Comrade Mikhailoff's operations was recognized early in our administration. We have plenty of laborers. By isolating the entire district, you can proceed with greater safety."

The nervous Khalin arose from his chair and drew a blue-print from his coat. "We should get to work immediately if we are to try out Comrade Lyons' suggestions. Time is short."

Mina smiled approval. "I'll be glad to report your zeal, Comrade Vice-Commissar." With a bold glance at Earl she left the room.

Earl gazed after her pensively. Mikhailoff concealed a smirk. "Ah, the new Russian Woman," he sighed, "how different from my time?"

THE day of the great experiment was at hand. Earl's ideas had been incorporated in the new series of generators with the greatest success.

Gathered at an instrument board were Mikhailoff, Khalin and Earl. They were completing the final inspection of all electrical connections.

"Are you ready, Earl?" asked Mikhailoff.

"Yes, sir."

"I'll be with you in a moment, comrades," said Khalin.

A loud knock on the door was heard and Mina entered with two Red soldiers, armed with bayonetted rifles.

Khalin nervously retreated. She smiled at his timidity. "We're not after you yet, comrade Vassily. I just wanted to advise you that the entire plant is surrounded by a regiment of infantry. I am leaving two men at the door. None will be permitted to pass but myself. You have complete privacy, even if this door will be locked for months, before this test is completed. Good luck, comrades."

With a smile at Earl she made her exit.

A strange longing tugged at his heart, as if he could foretell what weird events would take place before he would hear her pleasant voice again.

Shaking off the feeling of foreboding he turned to his labors.

Everything was in readiness.

Mikhailoff proudly signalled for silence. "Gentlemen, this is one of the most important moments of my life. There is a large element of danger present, but if we are careful no harm should come to any of us. I have prepared three pair of sandals made of a resinous composition resembling bakelite. I will ask you to don them."

Without a word Khalin and Earl replaced their shoes with the queer-looking, clumsy footwear.

Mikhailoff continued. "Let me remind you that we are working with voltages running up in the millions. Though the very atmosphere about us will be charged with heavy pressure electricity, we should feel no bad effects. Large charges will completely pass through our bodies."

He lifted a rubber curtain, revealing

a structure resembling a cage, with the bars about a foot apart. This cage rested on a thick, cork pedestal, raised about two feet above the ground.

SEVERAL people could have stood upright in this cage without crowding. Mikhailoff opened a door at one side. He placed a small box, containing a dozen guinea pigs, in the center of the cage and locked them in.

Returning to his colleagues he led them to the shelter of an insulated screen containing the instrument board.

"Watch, my friends, I am about to bombard the cage, which is really an insulated electric field of some magnitude, with a half million volts."

With these words, he closed a small switch and slowly turned a rheostat.

Earl and Khalin experienced the same thrill of anticipation that had enthralled them months before. The song of thrumming rotors, whirling away at thousands of revolutions per minute, filled their ears. Their pulses beat with the vibration of powerful dynamos.

AT a touch of the old scientist's hand a blinding electric discharge encompassed the cage. It glowed with a hellish light. Tiny squeals from within came to their ears. The cage with its living contents slowly faded from sight.

Earl was tempted to interfere when he saw Mikhailoff approach the place where the cage had stood just a moment before.

The old man waved him back and lifted a long rubber ferrule in his hand.

It was strange to see him make passes in thin air without the least resistance to obstruct him.

Earl thought he resembled an orchestra leader directing some invisible band.

Smilingly, Mikhailoff returned to his instruments and disconnected the current.

The generators signed and whined to a halt.

Before their anxious eyes, the form of the cage and the tiny animals gradually reappeared. The three men dashed to examine it.

Close examination showed no harm had been done to the pigs. They scampered happily to and fro in their container, much as they had done before the experiment.

Mikhailoff cried with joy. "My friends, kings, emperors, and dictators, all helped me to achieve this success. Would that all Russia's rulers could be here to celebrate with us."

The old man wiped his tears away. "But wait! While fortune is with us, why not follow her lead? What say you to a human trial? Imagine how marvelous, to be able to relate your experiences while in the realm of the fourth dimension. Who will volunteer?"

Earl and Khalin stared at each other. Both were pallid.

In spite of himself, Earl felt a cold chill grip his heart. He heard words leave his lips, hardly aware that he had spoken:

"I'll try it, sir."

Khalin's features were shining with perspiration. He stepped forward and stammered: "I'll go with him, too!"

The old scientist sighed. "If I were only younger. I'd go myself. But I'm afraid of the effects on my heart."

Earl, now feeling much better, consoled him. "Perhaps when we get back, you'll have a try at it, sir."

"Perhaps, my son, perhaps."

Earl entered the cage, with Vassily Khalin following closely behind. Nervously they stood awaiting the experiment to begin.

Mikhailoff walked over to them and extended his hand through the bars of the cage. "Good luck, my sons. A happy journey."

He returned to the controls. A moment later and the room was filled with humming vibrations. A tingling sensation crept up from Earl's toes.

* * *

With a sigh of relief, Mina Boyarsky heard the door to the laboratory slam behind her. She acknowledged the salutes of the soldiers with a slight nod and entered a waiting motor-car.

She was fond of Mikhailoff. The kind-hearted old man had woven his spell of charm about her. A sixth sense warned her that he was in danger, and she was glad that the young American scientist was there to protect him.

An involuntary smile came over her face as she thought of Earl. How different he was from any of her countrymen! Vassily Khalin for example! There was a man she instinctively distrusted, although Moscow had highly recommended him.

Arriving at a barbed wire barricade she stopped the car.

A young man in military uniform stepped from a guard booth. "Greetings Comrade Boyarsky!" he said.

"Captain Illytch!" she gasped. "Is anything wrong? What are you doing here so far from headquarters?"

He motioned her to follow him to a more secluded spot.

"Mina, Comrade Mikhailoff and his aides are in danger! We have discovered a counter-revolutionist plot to destroy the entire plant! Have you completed your precautions for their safety?"

Mina nodded, her face as white as a sheet.

"Good. About this American. Can he be trusted?"

"Y-yes," she stammered, "I am sure he can."

Illytch looked at her narrowly. "We must make sure. Let's go to the laboratory immediately."

They entered her car and swiftly approached the large, gloomy building. All along the road guards eyed them closely as they passed.

Two soldiers stepped aside to let them pass as they left the car and entered the outer door. A few feet further and Mina's intuition caused her to begin running towards the inner door.

At the sight before their astounded eyes, Illytch swore softly and drew a Luger automatic pistol. Mina's soft face hardened with anger and despair. The two Red infantrymen, whom she had left to guard the inner door to the Laboratory were dead. Their own bayonets thrust through their breasts, they lay in a pool of blood!

* * *

A BLINDING flash of light caused Earl and Khalin to blink. That was the last muscular movement they found themselves capable of making!

Of all five senses, sight alone remained to them. They could see as before, but with unusual clearness.

Earl attempted to lift a hand, but found himself powerless. He tried to turn his eyes to see the man at his side but could not.

Khalin was in the same predicament. Strangest of all, they lost all sense of hearing. The crackling of electrical discharges, the vibrating of the engines, and the humming of the motors had ceased. All was quiet, deathly still.

In the midst of this soundless inertia, Earl imagined he heard a voice. At once he realized the voice was in his brain, and not in his ears.

("Comrade, if you but concentrate, you will be able to send me your thoughts. Try, for heaven's sake, try!")

In this fourth dimensional kingdom, the power of thought transference existed! Well, he'd use it.

("This wasn't so bad at all") thought Earl.

Quick as a flash came the reply: ("I understand, Comrade. Try again.") Khalin's thoughts were as plain as if he had spoken!

("How are you, Khalin?") quizzed Earl.

("Much the same as yourself, Comrade. I feel almost ethereal.")

("Now I know the sensations of a disembodied spirit, Khalin") sent Earl. ("Nothing earthly seems to matter.")

("Lucky for us, Earl, that our eyelids were open or we would have lost the use of our eyes.")

("Then you *can* see, too, Khalin!")

("Yes, my friend") was the reply.

Earl was enjoying this effortless conversation. He wondered if the ability to read thoughts would remain on his return to—

The Russian's thoughts broke into his reflections. ("I am thinking the same thing, Earl. But I am also worried. What if we do not return—")

IF Earl had had the use of his nervous system, he knew he would have shuddered. He tried to drive the picture of two lost minds wandering in fourth dimensional space, from his soul.

A thousand questions crowded his brain. What would happen to his body? Would his hearty constitution miss its regular fuel? His sinewy muscles? And then the most important question of all. Would he ever see Mina again?

He forgot that Khalin was reading every thought as it was conceived.

Strangely, the Russian had acquired a courage, new to his timid nature. He discussed their problems freely and without the least anxiety.

("As far as your great body is concerned, Earl, do not worry. If we never return, what difference will it make? And if we do,—remember, that for us

time has halted; our bodies are not subject to three-dimensional ills or hungers.")

("You are right, Khalin. I shall forget my selfish concern. But how about—")

Before he could finish, the Russian interrupted: ("I understand; my friend, you mean Mina Boyarsky. I know my countrywomen. Now I can see that you really love her. Rest assured that your affections are returned. Mikhailoff and I joked about it frequently. But now let us attempt to look about us and try to examine our surroundings. Enough of introspection.")

Earl's eyes were still fixed in front of him. He gazed for a moment and signalled: ("I can see the laboratory, just as we left it. Dr. Mikhailoff is behind the insulated screen, busy at his instrument board. Do you see anything different?")

("No, I receive the same impulses, except that everything is very clear to my eyes. All seems usual. It is strange to be able to watch the vibration of the engines, and yet be unable to hear their noises.")

("Without doubt, Khalin, we see the same scene from the identical angle. Let us watch carefully for a moment.")

("Earl, look at that clock. It reads ten minutes of two. Is it possible that almost two hours have elapsed?")

("Why not, Khalin? Time may have stopped for us, but it is surely passing for the rest of the world. But, see—Khalin, see—")

A DRAMA was unfolding itself before them, in the laboratory. As they stared, eyes glued ahead of them, the door slowly opened. It must have been silently done, as the old scientist did not turn from his work.

Two men slipped into the room, bearing rifles. They were clad as Russian

workmen. As the door opened to allow them to enter, the invisible watchers caught a glimpse of the bodies of the Red guards.

The assassins slid back of Mikhailoff unnoticed. With a murderous leer on his face, the tallest intruder lifted his rifle and crashed the heavy butt on the old man's head. His companion laughed, brutally, as their victim fell to the floor lifeless.

("Did you see that, Khalin?") frantically signalled Earl.

("I'm afraid we are lost, comrade. And the poor Mikhailoff, just as he was triumphant. See, they advance to the controls— I hope—")

A blinding flash filled the room with its familiar hellish illumination.

Both Earl and Khalin felt again the tingling that signalled their return to the realm of three dimensions.

Earl sighed with relief as he moved his arms once more.

They turned to each other. The great machines were slowing to a stop.

The laboratory was bare of human life. There was no sign of the intruders.

The men stepped from the cage and advanced to the screen that sheltered the controls.

Only too well did they know what they would find behind it.

Earl steeled himself for the bloody sight of the scientist's remains.

Khalin, again timid, lagged a foot in the rear.

A sound from behind the screen froze each man in his steps!

Earl's heart stood still at the astounding vision before him.

An eager look on his face, his hands stretched forward in greeting—smiling triumphantly—Peter Mikhailoff stood before them!

They recoiled in horror! But they saw that he was unharmed and living!

The touch of his warm hands on theirs broke the spell!

Mikhailoff's features wrinkled anxiously: "You are well, my friends? Why the look of terror on your faces? What is—"

A scream from Earl stopped him.

"Look, Khalin, the clock—"

Khalin's eyes darted up the wall. "Fifteen minutes of two," he read.

Mikhailoff watched their antics, baffled.

Slowly the explanation filtered into Khalin's mind: "*The murder had not yet occurred!*"

Earl looked around for a weapon. He knew it was a matter of minutes before the assassins would enter the room. *

Khalin dashed to where he had laid his uniform coat. He pulled a heavy Webley revolver from a pocket and held it nervously.

Earl grabbed it from his hand, and aimed it at the door.

As they watched, it silently swung open, and the two counter-revolutionaries entered, the dead soldiers' rifles in their hands.

Their grim, murderous looks changed to stupefaction, as Earl calmly shot them through their heads.

Khalin slumped into a chair, thoroughly exhausted.

Mikhailoff regarded the bodies of the assassins and turned to Earl: "What does this mean? Who are these men?"

Earl wearily waved to Khalin. "Tell him, Vassily; I'm all in." He looked again at the clock. It was exactly two. Sighing, he fainted to the floor.

The old scientist looked from one to the other, hopelessly bewildered. As the inner door reopened, he reached for the revolver.

Mina and Illytch entered. Seeing

Earl stretched on the ground, she ran to his side. She tearfully covering his face with kisses.

"FOUR minds, with but two single thoughts," mused Mikhailoff, as he and Khalin watched Mina and Earl.

He was sure that they were thinking of love and marriage, while Khalin and he were reflecting on fourth-dimensional experiments.

Mina was explaining the reason for the attempted murder. "When I left you, the day of the test, I met my superior, Captain Ollytch. He informed me of a 'White Russian' counter-revolutionary plot to destroy you all. We hurried to your assistance, but when we found the bodies of your guards, we knew we were too late. How do you explain the fact that you were forewarned?"

Earl related how Khalin and he had seen the vision of the murder. "In America," he went on, "we would have called it a 'preview' of forthcoming events. I, myself, don't understand just how it happened, either. Khalin and I were sure you were lying back of the screen, stone dead."

Mikhailoff smiled benevolently. "My children, our ancestors would have called it a miracle. We know that somehow the fine balance that connects time and space must have been disturbed, in order to show you your 'preview' of my death. I don't know exactly what it was that made me change my mind and disconnect the mechanism when I did, but evidently it saved my life. In our future experiments, no doubt, it all will be clear."

Mina shyly looked up into Earl's eyes. "All new tests must await our marriage, my dear. I wouldn't care for you to have any 'previews' of our wedded life. You might change your mind."

In the Realm of Books

Conducted by C. A. BRANDT

Some More Light on "Mu"

COSMIC FORCES, as they were taught in Mu. The ancient tale that religion and science are twin sisters. By James Churchward. Published by the author. 246 pages. \$3.00.

The subtitles surely indicate a great deal of ambition, very creditable to be sure, but when I am told that Mr. Churchward does not agree at all with the facts and conclusions of modern science, because of his own findings and discoveries which he deduces from a "few scraps of sacred inspired writings", my scepticism becomes very wide awake indeed.

Mr. Churchward firmly believes that Mu, the long lost continent, which is all his own, by right of having seen it first, still rests on the bottom of the Pacific Ocean, location generally unknown, except to himself. He not only claims to know exactly where it can be found, but also claims to have positive inside information of what caused its destruction, and he further claims to know all about its peoples and to have detailed knowledge of the extent and magnitude of their civilization. Well, the late Mr. Fort, (see his *Book of the Damned* etc) also claimed to know a lot more than all the scientists in the World ever dreamed of knowing, and if Mr. Churchward, like Mr. Fort derives pleasure and happiness from his beliefs I am glad, though I do not find it possible to share his views.

The book is well illustrated and is a credit to the Author's untiring efforts to clear up an unexplainable mystery.

At any rate it makes interesting reading.

One More Tarzan Thriller

TARZAN AND THE LION MAN. By Edgar Rice Burroughs. Published by Edgar Rice Burroughs, Inc., Tarzana, California. \$2.00.

Talk about Commercial Candor. On the jacket of the book is a statement by Mr. Burroughs "Jacketeer," vouching for the fact that Mr. Burroughs considers "Tarzan and the Lion Man" the poorest Tarzan book he had ever written, but further below he also states, that "Liberty" which printed it serially, thought that it was the Best ever, and then leaves it to the Readers to decide for themselves. I am inclined to side with the Editors of Liberty. In my humble opinion it shows better imagination than many of the previous Tarzan books. As usual it is crammed with thrills from cover to cover.

I have been informed that the book was conceived by Mr. Burroughs through seeing the film "Tarzan the Ape-man," produced and exploited by Metro-Goldwyn-Mayer. Mr. Burroughs had the brilliant idea of placing a Hollywood Tarzan in the African jungles and confronting him there with the real Tarzan. Consequently we meet the real and the studio Tarzan, also a company of film spoilers, a very much spoiled female star and her understudy, as well as the necessary director with his staff of technicians, additional actors etc. The experiences of this group of people totally unused to jungles is at times exceedingly amusing. In fact I suspect that Mr. Burroughs is poking fun at the picture people. We also meet the "crazy scientist" in the person of an English biologist, who has produced a tribe of English speaking gorillas to whom he has given old English titles, all of which is very amusing.

No fantastic adventure story is complete without a treasure, therefore Mr. Burroughs very thoughtfully provides a valley, literally paved with diamonds, which are scooped up by the hatful, like pebbles on a Long Island beach, and that makes everybody rich, happy and content.

The book is ably illustrated by Mr. J. Allen St. John.

All Tarzan fans will like this book immensely.

An Event of Great Interest to All Readers Who Liked the "Moon Pool"

—A New Merritt

CREEP, SHADOW. By A. Merritt. Published by the Crime Club (Doubleday, Doran), Garden City, Long Island. \$2.00.

Mr. Merritt is well known as a student and authority on Ancient Sciences, such as Demonology—Sorcery—Black Magic—Voodooism—Alchemy—Hypnotism and other related and supernatural subjects. A good deal of his knowledge is brought out in his new book which is as fantastic as the "Moon Pool," and weird, grim and gruesome enough to satisfy the hungriest of thrill-hungry Mystery Fans. I believe an outline of the book is in order, to whet your appetite still further.

Probably one of the grimmest and most fantastic scientific battles ever fought started with the return of Dr. Alan Caranac to New York from a World Tour. Alan learned immediately that four young and wealthy men had committed suicide for no apparent reason whatever. Amongst these four men was Alan's friend Dick Ralston, who had just inherited

five million dollars, and had always been in good health with never a care in the world.

Alan then learns from his friend Dr. Bennett, a brain specialist, that black magic was responsible for Dick's untimely death. Dr. Bennett invites Alan to a dinner party and informs him that he would meet Dr. Rene de Keradel and his daughter, the *Demoiselle Dahut* of Ys de Keradel. Before the dinner Alan meets Dr. Bennett's sister Helen, who has been in love with Alan since early girlhood. During the dinner very sinister and frightful theories were advanced as facts by Dr. de Keradel and his daughter, who claim that they have rediscovered the lost secret of the transmigration of souls, a science which was known and practised by the Druid priests of Brittany. Dr. Bennett more or less directly accuses the de Keradels of having murdered Dick Ralston by hounding him with the shadow of a beautiful woman, who became more and more material with every visit. Dick fell in love with this shadow woman, who promised to become his, provided he killed himself first.

Dahut d'Ys exerts her hypnotic powers over Alan, re-awakens his subconscious ancestral memories and confesses to him that she is the reincarnation of another Dahut, the ancient white witch of Ys the lost city of Brittany, who was the mistress of the Shadows, with whom he has been in love, and whom he finally slew, when he was Alain de Cara Carnac, a lord of ancient Brittany.

Her power over him becomes greater and greater, and she compels him to visit her in her tower apartment in New York, though he had an earlier appointment with Helen. When Alan tries to break away, Dahut sends one of her shadows to torment Dr. Bennett, but recalls it when Alan agrees to visit her at the de Keradels' country estate in Long Island. The country-side is full of rumors of mysterious activities on said estate. The frequent disappearance of old people from a near by Poor Farm, and the finding of corpses add to the mystery.

Dr. Bennett learns through Alan, *via* Dahut, that Dr. de Keradel has been the lover of a Viennese witch, known as the "Dollmaker" from whom he learned many sinister and evil secrets. This "Dollmaker" (see Merrit's "Burn, Witch, Burn") was burned to death by Alan, with the aid of Ricori, an underworld chieftain. Alan and his friends become convinced that the de Keradels also have to be eliminated for the good of Humanity. This conviction becomes stronger than ever, when it is learned that de Keradel has erected a Druid Temple à la Stonehenge on his estate. During his visit there Alan manages to gain the confidence of the de Keradels, by agreeing to join them and he witnesses their horrible rites.

When Dahut, who has really been in love with Alan, sees that all her wiles and efforts

cannot lure him away from Helen, she decided to make an end of her wicked father, and by invoking the help of the ancient sea-God, she causes a tidal wave to destroy her father who was busy with the final ritual to clinch his was busy with the final ritual. Dohut is pushed into the raging Ocean by the shadows, over which she has lost her powers, and drowns.

An exciting thrilling masterpiece, written by a master craftsman.

KHAN PHANTOM EMPEROR OF 1940.

By Jerome Oliver. Published by J. C. Recklar & Co., 280 Broadway. 337 pages. \$2.50.

From time to time political fantasies appear in print, which point out the possibility of another World War in the very near Future. Do you remember "Banzi"? Fortunately most of these books overreach themselves, or rather their authors do. Just at the present time one of the New York dailies is running such a book in serial form, in which the Author predicts another World War in 1935, but here is hoping that he is an unreliable prophet.

Usually the authors of such books are men well acquainted with European or World politics, and they are also presumably familiar with diplomatic intrigue, which means lying on a grand scale. Mr. Oliver seems to be particularly well fitted and peculiarly well equipped for the writing of a political fantasy such as the "Phantom Emperor" as he has been in military as well as diplomatic service. He travelled all over the World, where he came in contact with many rulers of many races, which gave him a fine grasp and understanding of the hidden springs which move the destructive forces of our so-called civilized World.

Mr. Oliver's book takes us into the year of 1940 and pretends that America has learned a lot about international politics. The story takes us into the wilds of a South American Republic, where an Asiatic Nation has established a vast and well equipped airport, with thousands and thousands of war planes stored away, for the coming war with America. The hero destroys the entire settlement by setting fire to it and miraculously escapes with his life. The story takes us to Washington, to European Capitals, to gay parties as well as to mysterious meetings of international conspirators. The man who is behind the efforts to bring about another World War, is depicted as a sort of modern Genghis Khan, and Mr. Oliver has succeeded admirably in creating a very sinister figure indeed. Fortunately for the World, the tragedy of a general Holocaust is finally averted, and with the elimination of the Khan the book ends, sounding a sweet note of everlasting peace.

Any reader who likes political novels will be interested in this book.

DISCUSSIONS

In this department we shall discuss every month topics of interest to readers. The editors invite correspondence on all subjects directly or indirectly related to the stories appearing in this magazine. In case a special personal answer is required, a nominal fee of 25c to cover time and postage is required.

A Refreshing Bit of Humor from a Well-Known Correspondent Editor, AMAZING STORIES:

The mail is in, and our honorable, long-suffering editor is hard at work ripping open letters and receiving brick-bats and posies from irate and praising readers. He opens one, and glimpsing the signature throws down the offending epistle and roars, or should it be "moans?": "Another letter from that terrible bore, Mr. Crouch! Have I got to put up with *him* every month? The good gods that rule over all editors have mercy upon me!"

This is that offending missive:

Here I am again, commenting on the November issue of my magazine, the book of all books.

"Yiddle-e-o yumpin' yiminy," as the Swede would say. What's happened to Morey? Since the September issue his art of cover painting is, in my opinion, improving by leaps 'n' bounds. What say, you readers, am I right? I hope so.

The editorial: our mighty editor certainly knows how to get editorials out of that massive brain of his. It was—let the above statement speak for itself.

"The Moon Waits." Mr. Sullivan sure has an imagination. Instead of sticking in the rut and using a space ship, he developed a new, new to me anyway, method of Lunar-Earth travel. How about another story by H. L. G. Sullivan? "Noekken of Norway." Thank glory for a story with an eerie touch. But—Bob Olsen gave his idea of the origin and manner of beast in the tarn. O. K., why didn't he give us a theory as to why the mistletoe should exert such an influence over the tarn orgy?

"Land of Twilight." Just another story. Moses! How many times have I read stories based on hero-set-out-for-planet-gets-off-course-lands-on-other-world-fights-savages-beasts-rescues-pretty-girl theme? Nuff sed!

Haven't read the "First Flight" yet.

"Through the Andes." Atta boy, Verrill, fellow-me-lad. How you can write. Keep it up. Give us more archaeology theme stories.

I say, Mr. Editor, isn't it about time for another Quarterly? How about one with all the "Skylark of Space" stories in it, huh?

"Liners of Time." Where is it?

Now for a question, Mr. Editor, and I sincerely wish I get an answer so I'll thank you for it in advance.

How about a swell, spooky story on psychol-

ogy? You know, something shivery. Now don't say I want a thriller yarn, I do and I don't. There's a science back of psychology and what I mean is a science fiction psychology story by a man who knows what he's writing about. Get me?

O. K., guess I'll have to sign off now, so please don't think me impertinent in making that request.

So adios till next month, I hope, (and you groan).*

Leslie A. Crouch,
Parry Sound,
Ontario,
Can.

(Our readers are to be informed that this letter is from a man, as the name does not disclose this fact, and certainly from one of a very appreciative disposition. The editor gets plenty of brickbats, but fortunately he gets pleasant letters on the majority side. We have every reason to believe that we have a great many friends, and this is a very pleasant belief for us to hold. Sometimes we get real scoldings and we are not so conceited as to think that they are always undeserved. There is a theory that a person, who claims to "do his best," is apt to be insipid. And that indirectly expresses a justification for our editorial sins. We thank you for your appreciative letter.—EDITOR.)

Almost a Shower of Brickbats, Yet Our Stories Are Approved Of EDITOR, AMAZING STORIES:

I have been reading AMAZING STORIES for the past five years. However, I have never written before because I did not feel it necessary. Your magazine was truly the aristocrat of science-fiction.

I am now writing because I am being compelled to. The first sign of your magazine deteriorating, was its change in size. Also with this came the irregular edges and most of all that everlasting cramming of words and paper between two diminutive covers. At first, I thought the change would be so obvious that it would not necessitate my writing. Now, ye gods and pickled cooties, my patience is exhausted!

You have not changed in the least! In fact, I think you are taking a decisive change for the worst. I am ashamed to say you are being beaten by another magazine. I hate to throw brickbats at my favorite mag., still, if you wish

to keep up your circulation, you must improve. You have the best authors. Your stories are the best. There is no reason why you should not be superior to the rest.

So please, don't let AMAZING STORIES look as if the depression hit it. Restore it to its original size and prestige. Spread out! By doing this your magazine will be more perceptible—more prominent among the others. When will it truly be the aristocrat of science fiction?

So much for criticism. I have just finished the September issue. All of the stories were of the best in their own light. However, in the story "*Master Minds of Venus*," it seems that civilization proceeded along the same lines as that of earth. Since the earth is farther from the sun than Venus, it naturally cooled off sooner. Thus civilization must start at least a thousand years earlier on earth than on Venus.

IRVING KOSOW,
3415 Fulton Street,
Brooklyn, New York.

[Some of the exhortations in this letter are not to be considered advice as they probably cannot be carried out. Your note about the September number and your criticism on the "*Master Minds of Venus*," shows that when you read our stories you think. Of course our desire is that our stories be of the type to encourage thinking and to be almost chapters in science—EDITOR.]

Amusing, Almost Severe, Criticism Which Needs No Answer—Comparisons Are Odious
Editor, AMAZING STORIES:

Here goes for the line-up in the October issue, now before me.

Cover: Nez Hulan has *metal* arms. Also the living skeletons were gone before Hulan came on the scene. I think you must have got a Complete Detective Novel cover on our magazine by mistake.

Editorial: Best part of the magazine. This one is no exception. Why not continue the series with editorials describing the printing of AMAZING STORIES? It would be the next logical step.

Complete stories: *Pool of Life*. Silicon life has been used before as a theme for STF. but never so effectively. Schuyler Miller's story takes first prize for this issue. More by Miller.

85 and 87. Binder has done far better. If you get another story like that one, please, "pullase," ship it back to Mr. Binder. What a pickle our hero would be in if his gravity-resisting metal also resisted the gravity of Venus! Being spherical, Venus would spread the light reflected from its surface over a large area. How, then, could so small a lens pick up so much light?

Buried in Space. Perhaps the author thought

he had a new idea. I quote from "*The Venus Germ*," by R. F. Starzl and F. Pragnell. "I request that my body be set adrift on an independent orbit around the Sun." So "Space-burial" has been used before.

Cryptography: O. K. Need more be said?

Doctor Smith surely pulled the sky down on himself with his short letter in the Sept. issue. He must have been spoiling for a nice messy argument. Aw, Dr. Smith, who *wants* to fight about it? Tsk, tsks.

We want the large size!!!! If we can't have it, *we want even edges!!!!* Do you realize that other magazines have even edges?

William B. Hoskins,
90 E. Main Street,
Buckhannon, W. Va.

P.S.—I just noticed that I overlooked the serials. "*Moon Pirates*," was nice but pointless. Interesting but not scientific. *Fantasy but not science fiction*. And who wants another Inca story, even if it is as good as "*Through the Andes*?"

(It so happens that everybody does not want the former large size magazine. The small size suits many and certainly makes a better looking book for library use than did the other. You speak of Dr. Smith spoiling for an argument, we have received one letter in which the writer expresses his desire to see another good fight in the Discussions Column. Personally we think that true discussions are very interesting, but anything like a fight we consider is very disagreeable. As far as an Inca story is concerned, Mr. Verrill is a leading authority on the early history of Spanish-American countries, and it is quite a privilege to be able to present so good a story to our readers as "*Through the Andes*."—EDITOR.)

A Letter of Suggestive and Interesting
Criticism
Editor, AMAZING STORIES:

I have been a reader of your magazine for about six years, and I think I am qualified to enter the Discussions Department. AMAZING STORIES is still at the head of the science fiction list.

One thing which impresses me is the greater enjoyment I get when I read stories published a few years back. The interplanetary stories especially, seem better and more logical than the more recent ones. "*Invaders from the Infinite*" stands by itself among stories of this type, some of the others seem rather drab and colorless compared to this masterpiece. The time travel stories are also among my favorites. There seems to be no little discussion as to the possibility of traveling in time, but since there is no proof one way or another, let us enjoy the picture of the past or future which the author's imagination unfolds for us, and not worry too much about a subject of which we

know nothing. (and probably never will. Ed.)

To get back to the interplanetary stories, could you get a little cooperation from the various authors about describing the inhabitants of the various planets? It is somewhat disconcerting to read of the wonderful men and women inhabiting, for an example, Venus, and in the next story to see them described as mechanical men or frogs or super-intelligent fish.

Have you discontinued the practise of putting reprints in the Quarterlies? This seemed to me to be a rather poor practise, although it may satisfy the few who continually howl for reprints. How many times do they want to read a story anyway?

I am sure that the majority of the readers want new and better stories, Campbell, Smith and the rest are the ones who can produce them.

J. N. Tittensor,
9 W. Cooke Avenue,
Glen Olden, Pa.

(As we know nothing whatever about inhabitants on other planets we feel that our authors are justified in describing them in any way they please. Those who live on Mercury would have to be constituted far differently from us, if they were not restricted to the narrow zone between darkness and furious light with intense heat. The inhabitants of Mars must have a pretty frigid time of it and while Venus is rather near the sun, relatively speaking, the heat which she would otherwise receive from our luminary is greatly modified by a mantle of clouds. We cannot see why our authors should be restricted to putting exactly the same standardized beings on the different planets.—EDITOR.)

A Letter from a Mile Elevation—Morey and Some Authors Appraised Editor, AMAZING STORIES:

To start this letter off I want to throw an extra large brickbat at Morey. This might sound funny coming from one who has always praised him. But when he does a cover as bad as this one, "October" issue, then it is time he was brought to task. Now Artist Morey don't let us see another cover as bad as this one coming from your talented hand.

I will add my request to the already large audience asking for the return of the large size. I see no reason why you should have to wait until "August" to change to the larger size as you changed to the small size a year ago last "October." Let's have it right away. It will be a really welcome change to us. I could never figure out in the first place why you made the change. I think this smaller size has cramped Morey's style to some extent.

The second part of Verrill's tale is much better than the first, and that is saying quite a bit as I enjoyed the first part plenty.

The conclusion of "Jones" story ended another good story by this author.

I'm almost tempted to call "Buried in Space" the best complete story in the number, although the other two complete stories were excellent.

From an admirer of the large size.

Olon F. Wiggins,
2418 Stout St.,
Denver, Cal.

(Like that of all good artists Mr. Morey's work varies in its effect upon different people. We can assure you that it would not be easy to replace him. Many of our readers approve of the small size of the magazine. It fits better in the pocket, they say, and is more easily disposed of in a library. Personally we always felt that the large size was awkward. We do not consider your missile as you call it the ravings of a crank. Give us some more criticisms sometime.—EDITOR.)

A Vigorous Letter from a Canadian Admirer EDITOR, AMAZING STORIES:

It is now seven years since I first met with AMAZING STORIES. That was in a far corner of Saskatchewan, and perhaps you know just how lonesome a western prairie town can be. The good old magazine has brightened many a dull hour since then, and best of all was the time I saw my own letter in print.

I was very pleased recently to see an old favorite, "The Sunken World." But believe me, if ever you reprint "The Second Swarm" at least one reader will be very grateful. No story of science has ever before or since made such an impression on me.

The quality has not deteriorated during the years I have known the magazine, in fact, the reverse is the case. The September number is really scintillating, "The Master Minds of Venus" at least, being of the first magnitude.

Best wishes for the continued success of the finest science-magazine.

HOWARD M. STOBBS,
Mountain Sanatorium,
Hamilton, Ont.

P. S. The readers who beef about covers, size, style, etc., get my goat. It's the contents that matter and there's not much wrong there.

[We print your postscript exactly as you wrote it, as we think it is very amusingly put. AMAZING STORIES is getting a number of readers in other countries and we are acquiring a number of friends in Canada.]

Revolutionizing Motor Car Propulsion, Serials and Reprints EDITOR, AMAZING STORIES:

I've just finished the October issue, and I think it's one of the best you've put out in quite some time. Incidentally, I've felt that way about the last five or six issues, too. I sure hope you don't let down. Morey finally

came to his senses (more power to him) and has gotten away from the dull, unattractive coloring he usually uses on covers. While on the subject of Morey, why does he give his characters such thin legs? He usually does this to his villains, but sometimes the hero suffers a like fate.

Some short comments on the stories—Jones has done better work than "Moon Pirates." (Witness his Prof. Jameson stories. By the way, when do we hear from the Professor again?) Verrill is at par; Binder, new to A. S., is at his best in "85 and 87"; P. Schuyler Miller gives us a peach of a story in "The Pool of Life." It's a new idea, which is something.

A brickbat—I've noticed that whenever some kick comes from the readers about there not being any science in stories like "Delilah," "The Doubt," and "Roadside Strategy," you always stand up for the story in question by explaining some scientific point in the story that isn't noticed by the eye of the casual reader. Personally, I think this a foolish way of answering such comments, because when all is said and done, you will find science in any story ever written, I don't care what type or what date. Even in a short sentence like "Three shots rang out in the night" there can be found at least three of the natural sciences—Chemistry, Physics, and Astronomy; Chemistry for the cause of the shots; Physics for the sounds; and Astronomy for night. Probably if one delves deep enough, he'd find several more.

A compliment—for your clear, highly legible type which is no strain on the eyes at all. This deserves praise after a look at the pages of your two competitors, the one with close type that is an eye-strain, and the other with such large type and such great space between words and lines that it makes the number of words per page much less.

A question—Not so long ago, you asked whether or not the fans wanted a reprint of "Skylark of Space" or of "Skylark Three." What came of that? I should think your readers would much rather have these stories reprinted than those by Edgar Allen Poe and Jules Verne—if you *must* have reprints.

A request—How about one or two more complete stories per issue? If you're pressed for space, you might cut out one of the serials. In a monthly magazine, one serial is enough, I think. By all means, keep printing one 50 page complete story every issue.

I'll sign off now, and I sure hope you keep the magazine up to the standard you've set and kept for the last half-dozen issues.

HAROLD KIRSHENBLIT,

928 New Lots Ave.,

Brooklyn, N. Y.

(All we can say about the artist Morey is that he is growing in favor with our readers.

If he reads this he will probably thicken the legs. In view of your parthenthetical note about the Professor Jameson stories, we hope you liked the one which appeared in our December issue. Our idea is to restrict the serials to one in each number, but occasionally two will creep in. What we said about the science in "Roadside Strategy" is perfectly correct. You have probably noticed the advertisements of a brand of gasoline stating how many foot pounds of energy it could develop, but think what a wonderful thing it would be if, with heavy oils, costing much less, with two or three times the energy per gallon, all automobiling could be revolutionized.—EDITOR.)

Notes on the October Issue—The New Element Editor, AMAZING STORIES:

It is really hard to criticize the October AMAZING cover. The figures and the machine were very well done, but the background absolutely spoiled all of the picture. The ugly yellow strip across the top actually attracts the eyes more than the figures or the machine which are by far the most important. Another thing, the cover seemed divided into three parts, and had an artificial atmosphere. Morey is falling into a rut, his figures and background should be more natural. I also repeat, get back the comet-tail title.

The editorials continue to be interesting.

P. Schuyler Miller created a rather unusual narrative in his "The Pool of Life." It seemed something like his previous "The Arhenius Horror," yet was different. The idea of the new or alien form of life based on silicon has been used before. However I must say that I enjoyed reading the story.

"Eighty-five and Eighty-seven" was very good. I liked the way the story was written. In your preliminary comment you mentioned something about element 93. I have heard it mentioned before but have been unable to gather any data about it.

I hope "Through the Andes" is in three parts.

"Buried In Space" was O. K.

Can you please tell me where, O where, Mr. John W. Campbell Jr. is hiding? He is my favorite author and I haven't seen much by him of late. Please rush his next story.

Yours for A. S. to turn a weekly.

RAYMOND PEEL MARIELLA

5873 Woodcrest Avenue,
Philadelphia, Pa.

(You will see from a preceeding letter that the yellow surface at the top of the October cover may almost be termed a mistake which was appreciated when it was too late to change. "Through the Andes" was in three parts as you hope. We started a new serial by Mr. John W. Campbell, Jr. in the January issue. It is quite a long one and may take four issues for

completion. Yours is the second letter now before us in which the wish is expressed for *AMAZING STORIES* to become a *Weekly*. There is little to be said about element 93; like all new elements it is far from plenty and little is known about it.—EDITOR.]

Editor, *AMAZING STORIES*:

Due to frequent requests for back numbers of *AMAZING STORIES*, I have decided to sell all copies which I have prior to 1932. These consist of the following:

1927—Vol. 2, Nos. 8 and 9.

1928—Vol. 2, Nos. 10, 11 and 12.

1928—Vol. 3, Nos. 1, 2, 3, 4, 6, 7, 8 and 9.

1929—Vol. 3, Nos. 10 and 11.

1929—Vol. 4, Nos. 1, 6, 7, 8 and 9.

1930—Vol. 4, Nos. 10, 11 and 12.

1930—Vol. 5, Nos. 1, 2, 3, 4, 7 and 9.

1931—Vol. 5, Nos. 10, 11 and 12.

1931—Vol. 6, Nos. 1, 4 and 5.

If any of your readers desire these copies I will be glad to hear from them.

E. O. Erickson,
Marengo, Ill.

About Fallacies in the Story, "The Moon Waits" Editor, *AMAZING STORIES*:

I have just read "*The Moon Waits*" in the November issue. Your question about the fallacy in the story seems to invite criticism.

In the first place, travel was made through the tube by "vacuum pressure." (Page 32, paragraph 8.) This is a misnomer, but we will take it as it is meant. Granted that the men created the vacuum in the tube, no travel to the moon is possible unless air is released behind the traveler, with a vacuum between him and the moon. If the tube is opened after the traveler has entered, and if he is surrounded by or supported upon some airtight gasket so that the vacuum above is maintained, the normal air pressure will lift him to quite a height. But when the pressure, on the gasket, of the earth's atmosphere still above him, balances with his weight, he will rise no further. Compressed air forced into the tube below would help, but impossible pressure would be required for a complete trip to the moon.

The above is probably the obvious fallacy mentioned. However, since I've started criticizing, I will continue.

The tube is supposed to be weightless. Therefore, when the air is exhausted from the tube, the normal air pressure outside would push it right up out of the atmosphere, like an empty corked test tube bobbing up out of water. If the tube was anchored, a downward pull of over seven and one-half tons would be required to hold it, for a tube three feet in diameter.

The story mentioned that a cap on the moon end of the tube is needed before the tube can be exhausted. This is not necessary. There is

already a vacuum above the fifty miles of earth's atmosphere. This vacuum does not suck the air from earth. Exhausting the tube would be like draining water from a test tube through a hole in the bottom, only it would have to be pumped, of course.

Once more assuming a vacuum in the tube, and the tube securely anchored, I see flaws in the procedures mentioned on page 54:

Paragraph 9: An airplane could not go slowly enough to allow a man to "grope for the end of the tube." If he caught the tube, he would probably be knocked off the plane.

Paragraph 17: "Dolman removed the cap." Over a ton per square foot air pressure is exerted on the cap of the tube, at normal air pressure. No man could pull off that cap, much less while teetering upon the wing of an airplane.

Paragraph 19: A pneumatic mattress would be a pitiful shock absorber for a person falling freely through a vacuum. If anything fell freely in a vacuum, for only three minutes, a speed of over a mile per second would be attained. Even a parachute would be torn from its wearer upon emerging from the tube.

Page 56, Paragraph 2, second column: Here the vacuum is apparently "pulling" two ways at once, which is ridiculous.

A third major flaw is that the earth rotates once in 24 hours, while the moon revolves about the earth once a month. The tube would be swinging around with the earth, and only for a short time each day would it be near the moon, and then only if in the plane of the moon's orbit about the earth.

Moreover, if the traveler ever got to the point in the tube where earth's gravitation was balanced by that of the moon, centrifugal force would swing him toward the moon and out of the end of the tube at a terrific rate.

A last feeble complaint:

The tube is visible only in "violet" light. Violet is one of the colors of the spectrum, and therefore is present in sunlight. Therefore the tube would be visible at day. If ultra-violet is meant, no ultra-violet light directed on the tube would make it visible to us, because our eyes do not respond to that. To say that it is visible in violet light means that it absorbs all visible light except violet. Then the tube would simply be violet or purple colored.

Notwithstanding the above, I greatly enjoyed the story by overlooking the fallacies. It was very interesting. When Sullivan studies his science, have him write more stories.

Now for the story, "*Photo Control*," August, 1934. The gyroscope could not press down on both ends at once. Two gyros would do it. However, when a photo-control car went up a hill, it would remain parallel to its original horizontal plane. When going up a hill, its front wheels only would be on the road, and the car would stick out horizontally, rear wheels

spinning in the air. This, of course, if strong enough gyroscopes were used. Gyros strong enough to apply the great pressure called for in the story would probably be sufficient for this phenomenon to become apparent.

If any reader wish to contest my reasoning or point out mistakes, they are welcome to do so. Let's have more discussions in Discussions, not just lists of arbitrary merits of stories.

Richard G. Kerlin,
1609 P St.,
Lincoln, Nebraska.

(The fallacy we had particular reference to is discussed in your letter in the paragraph beginning "A third major flaw is . . ." *et seq.* We leave the very interesting letter to our readers; the closing sentences in Mr. Kerlin's letter are of special interest. We hope our readers will act up to them.—EDITOR.)

A Very Appreciative Letter from Australia— Well Worth Reading

Editor, AMAZING STORIES:

An increasing array of letters in the Discussions from Aussie readers has moved me to add my humble missive to the post bag.

AMAZING STORIES have held my attention for the past four years, and it is undoubtedly in its best form at present. Your experimenting with size and arrangement has at last brought A. S. right up to the front line.

I have particularly enjoyed some of the yarns in late issues. "*Terror Out of Space*" was a credit to its author, H. Haverstock Hill. It held interest right to the last word, which, sorry to relate, many installment yarns do not. "*Triplanetary*" was of particular merit, also.

"*The Mentalicals*" was a first rate effort by Flagg. Bob Olsen displayed his versatility in "*Peril Among the Drivers*," and "*A Job of Blending*" was a little gem.

With AMAZING STORIES well settled in its new size and shape, I have noticed the new editorial policy—a careful blending of stories submitted in every issue. They are all of consistent standard, which is a high improvement on old copies.

The covers also are pleasing to the eye. Jan., Feb. and April were first-rate efforts by Morey.

Jules Verne on the cover was a capital idea. I remember M. Stanbery of New Orleans mentioned this enlargement. It turned out fine.

I will particularly welcome correspondence if readers feel in the mood to betake themselves to pen and paper.

Cheerio—and continued success to "our" magazine.

T. Alan Ross,
389 St. Kilda Road,
Melbourne, S. C. 2,
Australia.

(Australia again comes to the front with this

interesting letter. He does not give us any Australian language but our readers will notice the English, "Cheerio" at the end. We are impressed rightly or wrongly with the idea that there is always a bit of atmosphere in letters from the Antipodes and we get a number from Australia and New Zealand. We have many readers there, and judging from the letters very appreciative ones.—EDITOR.)

An Appeal for American Correspondents from a New Zealand Student—We Hope That He Will Get a Good Response

Editor, AMAZING STORIES:

Every page of the principal story in the quarterly was absorbing and throughout the story there ran an undercurrent of human kindness which, alas, is so rare in such literature.

I've been reading your mag. for the last six years and in my opinion one of the best stories was "Omega The Man," rather depressing but a splendid yarn all the same.

By the way I'm just crazy for a few Yankee pen pals. I've been trying to get in touch with America for years without a spot of luck. I'm 19 years old, very keen on scientification, dirigibles, poultry farming, luxury liners and any particular modern marvels that come along, and I'd be darned glad if readers of your mag.—male and female—would take pity on me to the extent of dropping me a line.

I'd be real pleased if you'd print this well-nigh illegible letter for the above reason. Again congratulating you on the high standard of your stories, I remain,

W. R. Green,
Box 17,
Silverdale,
Nth Auckland,
New Zealand.

(A student in New Zealand wants to have some American correspondence. We begin to feel that we ought to move our Editorial desk to that part of the world because we have so many friends, in the literary sense, in Australia and New Zealand. We feel that is very flattering to have letters from that part of the world and somehow or other we like to please those correspondents.—EDITOR.)

Another Letter from Australia — We have Good Friends in the Antipodes

Editor, AMAZING STORIES:

I have procrastinated about 3 years with this letter, so at last I take this opportunity, and thank you for the pleasure that your science fiction books have given me for quite a few years.

Why do these books cost 25 cents in U. S. A. and we have to pay 6 pence for them. That's about 12 cents, not that I complain about the price, as I have had to pay up to 88 cents for very old back numbers; now that is a real

compliment to you (to get more valuable with age.) I will not hold any special story as my heart's balm, as nearly all seem to hit the right spot, and the very few that don't taste just right make the others sweeter,

So I am a highly satisfied reader of *AMAZING STORIES* and the dealer allows 3 pence on the old cypso so I think I have had my last four years' entertainment at your expense? Your small size books are just the thing; they fit the pocket and slide into the book case without any trouble, only improvement I can suggest would be to gold dust the tops and bind in calf skin (embossed). If you should read this I congratulate myself on knowing your Mag's and will welcome correspondence from readers—Good Wishes, Editor and slaves.

(Mr.) K. Hoffmann,
25 Nelson Road,
Undercliffe, N. S. W.,
Australia.

(Again we have a letter from Australia. The stories which we publish should be good, because they are read for approval by two separate readers, one after the other, and then are edited and corrected *ad libitum*. We do not quite understand the application of figures you give us as the Australian price, of *AMAZING STORIES*. It is refreshing to know that a reader says that the small size of the magazine is a comfort to them. Personally we think it is a great improvement. We have an Editor but he never has found any slaves at his command.—EDITOR.)

An Interesting Letter from an English Reader Editor, *AMAZING STORIES*:

Although I have been a reader of your magazine for many years, this will be my first letter to you, and I might as well warn you straight away that it isn't going to be entirely complimentary!

I do not think yours is the best magazine on the market, Dr. Sloane, but in some respects it is better than the others. You have the best Editorials, the best Discussions and the best printing. And judging by the manner your readers still rave over Dr. Smith and Mr. Campbell, you have published some of the best stories. Only you don't do that so often nowadays, it seems to me. Perhaps the Smith "addicts" will say it's because you've just printed "*Triplanetary*" and so that does not give the other stories a chance! I am sorry to see, by the way, that Dr. S. has written another "Skylark" story for one of your rivals.

I like your new size. Please stick to it. The old magazines used to bend under their own weight when you put them on the shelf, but the new ones are much sturdier. I don't care if you have trimmed edges or not, but I think the drawings are most important. The covers you had from January (1933) to July didn't

appeal to me at all. Did any readers notice a curious fact about the July cover? The artist missed out what is, from my point of view, a rather important bit of Europe.

Your covers would be better if they were a trifle brighter. They've been a pale blue-green long enough. Morey is a good enough artist when he takes care.

Poor Mr. Editor, you seem to have got into trouble over reprints! Every other reader is down on you for printing Poe and Verne. Here in England we can get nearly all the latter's books in the library, but if some of your readers can't obtain them you are justified in printing the lesser known ones. I had never heard of "*Mellonta Tauta*" or "*Measuring a Meridian*," both of which were pretty good, if a trifle "antique." There appear to be plenty of stories your readers want you to reprint. "*The Blind Spot*," "*Station X*," etc., etc., none of which I have read. If these stories are as good as some people made out, please try and let us have them.

Several of your writers have been using the term "the square of the velocity of light." I would like to point out that such a term is more or less meaningless. Velocity is length divided by time. Therefore the square of a velocity is a length squared (or an area) divided by a time squared. I don't know what this is, but it's certainly not a velocity.

I am afraid "*The Velocity of Escape*" gave me a pain in the neck. It was awful! Skidmore speaks of the "stratoscope." What on earth's that? I've heard of the stratosphere, but anything ending in scope is connected with vision, e.g. microscope, telescope. His explanation of the kinetic theory of gases is all right, but such an elementary discourse seems needless to "the best scientific minds in all the world." Millstein's explanation of the cosmic rays (two pages of it) is very interesting, but it slows down the story. And I hardly think such a scientist would have Cromwell for an assistant. The fellow couldn't understand poor Millstein's simplest explanations.

But what upset me most was the ending. Why should Millstein jump to the conclusion that the Falcon's base was on Sirius, just because Cromwell happened to mention the star? What a place to choose! Surface temperature, 10,000° C.! Distance, 50,000,000,000 miles (Don't drop any 0's Mr. Printer.) It would take the "*Falcon*" a good many life-times to get there, let alone use it as a base for operations against the earth. I wish your writers would be more careful about stellar distances. Only Smith and Campbell seem to realize just how far away the stars really are.

Please don't be too discouraged, Mr. Skidmore, I liked "*Posi and Nega*." But even here, also I must object! The atoms are not built up of protons and electrons in the simple

way you indicate. The discovery that atoms contain positive electrons and neutral particles has upset all that.

I am interested in your English authors, and am glad to see that they generally turn out good work. "*The Intelligence Gigantic*" was very good, and "*Photo-Control*" in the August issue is one of the best stories you've had for a long time. I don't see how the scientist shut off the infra-red rays, however, in the latter story.

Before I sign off, I would like to hear from any readers in England who have copies of *AMAZING STORIES* or any other Science Fiction magazines for sale. Thank you!

A. C. Clarke,
Bishop's Lydeard,
Taunton,
England.

(We find that often the same story is both criticized and admired. There is no rule about it. Some like what others dislike. We might feel justified in saying that the friendly letter, for it is that, by its kindly criticisms, has disarmed our defenders. We wish we had more such letters. *Stratoscope* was undoubtedly a *lapsus pennae*. As the velocity of light is definite quantity there is no reason why it cannot be squared.—EDITOR.)

**A Canadian Reader Writes His Views—
He Admires Jules Verne's Works**
Editor, *AMAZING STORIES*:

I have been an interested reader of *AMAZING STORIES* since the first issue of April 1926 and I have every copy, in as good condition as when I received them. I go over them quite often and in comparing the earlier issues with the present ones, I find that there were much better illustrations in the former. For me Paul was the best artist that *AMAZING STORIES* ever had.

I am glad that you went back to having the cover design illustrate a scene in one of the stories. The few issues that you put out with futuristic covers seemed silly.

I notice that every time you publish a Jules Verne story there is always a lot of criticism, but that is because they do not understand him. Jules Verne is a Master the same as Verdi and Wagner and Mozart in the musical world. A lot of people will listen to some tunes that are thrown together by somebody that hardly knows one note from another and as long as there is a lot of noise, they say it is good, while they will say that the great classics are dull.

Jules Verne's works were written many years ago and are still read. Why is that? It is because they are masterpieces. I'll bet that not many of the stories that are published in *AMAZING STORIES* will be read 50 years from now.

Take for example the last story, "*Measuring a Meridian*" the science is exact, the method is exact. After reading it almost anyone could go and measure a Meridian himself and the description of the country is just about what it was at the time it was written. In every one of his stories the science is exact, the characters are true to life and the scenes are described fully; then there are generally brought in some bits of history, generally some history of a scientific nature, that is not generally known.

Compare that with fantastic stories of space ships that go thousands of light years in a few seconds and harnessing the power of hundreds of suns and in which the science is not nearly right.

It was an ad in '*Science & Invention*' saying that a new magazine would be published, and that all of Jules Verne's stories would be published, that started me reading *AMAZING STORIES*. Sometimes it has been a hard time to get the magazine, after the Canadian Government put a duty on them and they stopped coming into Canada, but I always managed to get them.

Personally I prefer the large size. It seemed more dignified and looked better on the shelves.

Alfred St. Laurent,
St. Raphael, Quebec,
Canada.

(You should have no trouble in procuring *AMAZING STORIES* in Canada, as it is now published there. This is a rather recent development and one that is appreciated on the north of the Great Lakes and of the St. Lawrence River. When one considers the career of Jules Verne he appears to be lifted above ordinary criticism.—EDITOR.)

A Pleasant Letter from an Old-Time Reader
Editor, *AMAZING STORIES*:

I have been reading *AMAZING STORIES* since 1927, but missed 1932 and 1933 (due to the depression).

This is my first letter to you, or any other magazine, and I wouldn't be writing this only some of the letters in Discussions have gotten on my nerves. Here's the cry, why don't you have smooth edges! Of all the dumb things to cry about (phooey). What's the diff. if they are smooth or not, as long as the stories are good. Most of the science goes away over my head. I must confess to being kind of dumb. I would like to have some one living near or in Pittsburgh write to me. I haven't any brickbats to throw, as good old *AMAZING STORIES* has always satisfied me, in 1934 as in 1927.

Thomas Halligan,
117 Beaver Avenue,
Bellevue, Pittsburgh, Pa.

(We feel that we must thank you for your very appreciative letter. We can assure you that the editor of a periodical needs some encouragement and it has to come from his readers. Brickbats are bound to come however; it is a pity that one never gets fairly acclimated to such projectiles.—EDITOR.)

Comparison of the Work of Artists— Notes on Stories

Editor, AMAZING STORIES:

This letter was inspired by a letter in your December issue. It stated that the Fall Quarterly was proof that Morey is a better artist than Paul, because the work of both appears in the issue and Morey's is better than Paul's. The writer of this letter may not like Paul's drawings and he is perfectly entitled not to, but the illustrations in the Fall issue can not be used for proof because of quite a number of facts. First of all, Paul's drawings lost about one-half of their clearness and magnificence in the reprinting, as any one may see by comparing the illustrations in the Summer 1928 Quarterly with the same drawings in the present issue. Morey's drawings were new, and even at that the cover was not much to speak of. In the second place, Paul's drawings were made in 1927 or 1928, when he had not acquired nearly as much skill as he has at present. As you can see, it is not fair to compare the two in this case. Personally I think that Morey's drawings are quite good, but looked much better in the large size.

I have not had time to read the December issue as yet, but the November issue was quite fine (and not only because of the fact that my first letter was printed in it, either).

"The Moon Waits" was a surprisingly interesting story from a newcomer, and "Land of Twilight" was also. I am tempted to take back anything I said about new authors in my previous letter. Thus far we have very recently received excellent stories from them, such as "Beam Transmission," "Master Minds of Venus" and the two aforementioned.

Going back to artists, Morey is O.K., but for Heaven's sake give him a rest. You could have the drawing done about half and half between Wesso and Morey, who are the only ones who approach Paul's inimitable skill. Wesso is excellent for pictures of cities. I shall never forget his drawing for "Paradise and Iron."

I have the book form of "Moon Pool" over four hundred pages, stiff covers with gold lettering of title, etc. which I would like to trade for the three parts (August, September and October 1928 issues of A. S.) of "Skylark of Space." Anyone interested may write to me at my address.

Oliver Saari,
1342 1st Street, S. E.,
Rochester, Minn.

(Your very appreciative letter needs no answer, and that is a merit in itself. We find that Morey is doing good work. Comparisons with other artists he stands up under very well. We certainly approve of new authors, yet we want to keep the old favorites. You find several of the latter in the recent issues.—EDITOR.)

Copies of the Magazine with the "Second Deluge" in It Asked For

Editor, AMAZING STORIES:

I have just been reading AMAZING STORIES for a few months and I find it very interesting.

I have just read "The Sunless World," by Neil R. Jones in the December issue and it's a pip.

Does anyone have for sale the issue with "The Second Deluge" in it?

Well, Mr. Editor, I guess there's nothing more to say but that you've got a swell mag.

John Chapman,
309 1st Street, Se.,
Mimot, N. Dakota.

(Be sure to get the "Second Deluge" in the Magazine. It was slightly abbreviated in the Quarterly.—EDITOR.)

An Amusing and Flattering Letter from One Who Signs Himself "Loyal Rooter"

Editor, AMAZING STORIES:

My first letter to "Discussions," with some suggestions, but first some compliments.

I like Morey as your artist. His covers are fine. Nearly all the stories I have read are fine (I have been reading science fiction since Nov. 1933), especially "Life Everlasting" by Keller.

How about having an editorial about the natural sciences? In it you might discuss the relationship of mathematics to physics. Following that have one about the social sciences.

I am sure many readers would like to know something about their favorite authors, so why not have each month on one page the picture and biography of an author. I have about 100 authors in my index since Nov. 1933. Thus you would have a permanent department as new authors are always found, as time goes on.

From all the stories I have read since last November and from a few back issues I awarded places in the following mythical institute to certain authors.

AUTHOR'S INSTITUTE

Director: T. O'Connor Sloane.

Assistant: E. E. Smith.

Department of Astronomy

Head: J. Lewis Burtt.

Department of Physics

Head: J. W. Campbell, Jr.

Assistant: P. S. Miller.

Department of Chemistry

Head: Joe W. Skidmore.

Assistant: Paul Ernst.

Department of Engineering

Head: Harl Vincent.

Assistant: Bernard Brown.

Department of Psychology

Head: David H. Keller, M.D.

I hope more authors will be qualified to become members in the future. I would like to see a science fiction fan who is a veteran, preferably Jack Darrow, Forrest J. Ackerman and P. S. Miller, express his opinion on the deplorable lack of science in science fiction.

Wishing the best of luck to the aristocrat of science fiction, a loyal rooter,

Arthur Kazerman,

395 Cross St.,
Malden, Mass.

"Life Everlasting" by Dr. Keller may fairly rank as his best story. There is love of humanity in it, and an appreciation of what is best for our race. There is pathos in it, and a sort of implication that it is sometimes well to let well enough alone. The editor is very proud of his new office as disclosed in your letter. We hardly have room in our columns for the biographies you suggest.—EDITOR.]

A Cross Letter from Scotland

EDITOR, AMAZING STORIES:

I have just received your Quarterly and threw it into the wastepaper basket. I have read all the stories in it already and as a matter of fact I have still got the issues in which the stories appeared.

If you must have reprints, for heaven's sake issue a reprint Annual, a Quarterly, or a Monthly as you please, but in all fairness to your subscribers who pay for new stories, keep the Monthly and Quarterly free of this easy method of filling space.

DR. W. A. GIBSON,
Rowanbank,
Bathgate, West Lothian,
Scotland.

[This letter from a canny Scot, we are glad to say, is not typical.—The last Quarterly was marked "Reprint Edition" on its cover.—EDITOR.]

Another Letter from a Youthful Correspondent

EDITOR, AMAZING STORIES:

I am 14 and have been buying your magazine since 1931. Before I give you a list of the stories I have enjoyed thoroughly, I want to express my hope that you keep up the present size of the magazine. It seems to have more durability than the old size. My favorite stories since 1931 are: "The Stone from the Green Star," "Trojans," "Treasure of the Golden God," "The Jameson Series," "Peril Among the Drivers," "The Moon Pirates." Although you have not had many stories from him, my favorite author is Neil R. Jones. Just recently I took an interest in your Discussions Department and now follow it quite regularly.

The only criticism I have for your covers are that there is not enough scientific (fantastic and otherwise) apparatus portrayed, and your latest issue's cover with Nez Hulan looks like a comic picture although the machine for producing the torture ray is very complicated looking. Morey is by far the best illustrator.

I buy two other science fiction mags besides A. S. I think they are all just as good although you have much greater variety of stories; anything from fighting natives in the jungle with primitive weapons to highly modernized destructive ray-fighting in space ships.

I read Cecil Sheppard's criticism of love stories. By all means leave them in. I may be young, but I enjoy them as much as any grown-up.

EDWARD L. FRENCH,

4 Shaler Lane,
Cambridge, Mass.

[This very appreciative friend of AMAZING STORIES began reading the magazine when only ten years old. Young correspondents are often our severest critics, but in this correspondent, who seems to have a mature mind, we have a very friendly judge of our work and must express our sincere appreciation of what he tells us.—EDITOR.]

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31 x	5.25-213.251.15
28 x	5.50-183.351.15
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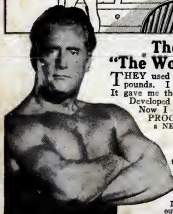
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